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Marxism Today

EDITORIAL COMMENTS

MAURICE DOBB — RECENT ECONOMIC CHANGES IN SOCIALIST COUNTRIES

ERNST HOFFMANN — SOCIAL-ECONOMIC FORMATIONS AND HISTORICAL SCIENCE

SAM LILLEY — GALILEO AND SCIENTIFIC METHOD

DISCUSSION:

TOM DURKIN, JOSHUA S. HORN — LABOUR, WHAT NEXT?

J. R. CAMPBELL — "THE THIRTIES"

S. F. SEARCHFIELD — IN DEFENCE OF MILTON

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Marxism Today

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Editorial Comments

THE inevitable consequences of the Labour Government's foreign and colonial policy, together with its fear of hurting the monopolists, are showing themselves in the fresh balance of payments difficulties and in the cuts announced by the Chancellor of the Exchequer, which not only threaten rising unemployment but involve the abandonment or postponement to the indefinite future of many of Labour's industrial and social "plans for progress". These cuts in the expenditure of the Government and local authorities come at a time when Britain's economy is already showing signs of weakness, with lower production in some industries, growing unemployment and falling exports. The cuts can only make the prospects worse. Meanwhile, the drain on the economy goes on. Under pressure from the left in the Parliamentary Labour Party, the Government agreed to a resolution calling for a drastic reduction in arms expenditure, but on the following day Mr. Wilson told the House of Commons that the Government's aim was only to keep it down to £2,000 million a year.

But this is the level of arms expenditure which has brought with it the rising balance of payments deficit in the past, and has compelled the Government to depend more and more on loans from the United States and international bankers. Mr. Callaghan hopes that the deficit in the balance of payments can be reduced in 1965 to about half what it was in 1964. This sounds good, but it only means that the 1965 adverse balance will be some £400 million instead of £745 million. Instead of being paid off, the foreign loans will have to be increased to something like this amount, even if speculators' "runs on the pound" do not make it necessary to borrow still more.

And with the increasing loans, the pressure from the American and European bankers will also increase. Already this pressure has resulted in subservience to the foreign policy of the United States, as well as in the drive for an "incomes policy", and now in the cuts designed to create unemployment, hold back social progress, and reduce the purchasing power of working people. British home as well as foreign policy is now increasingly dictated from abroad.

Vietnam

President Johnson, announcing the sending of more and more United States forces to fight the National Liberation movement in South Vietnam, declared his loyalty to peace and his desire for someone to take the initiative in bringing about negotiations to end the war. Each time he takes a further step to escalate the war he does the same thing, in the hope of stemming the campaign, in the United States and all over the world, against his war of aggression. But other Governments as well as peoples are getting to understand that there is no question of any compromise between American imperialist aims to make South Vietnam a base for American exploitation of Southeast Asia as well as for further aggression, and the aims of the National Liberation Front. These are quite straightforward, and have been repeatedly stated: to ensure the implementation of the 1954 Geneva agreements on Vietnam, which involves the withdrawal of all foreign troops from Vietnam. The negotiations which President Johnson is asking for took place at Geneva in 1954, and in view of the fact that it is the United States which repudiated that settlement, how can the Vietnamese people, North or South, put any trust in fresh negotiations?

Electoral Reform

The proposals submitted by the Communist Party to the Speaker's Conference on Electoral Reform are as timely as they are persuasive.[1] Many people have specific criticisms of one or another aspect of the present system of British elections, but few will understand the degree to which it is undemocratic.

The first part of the Memorandum makes a number of general observations. Ten of the twelve General Elections held in the past 40 years, for instance, have resulted in governments supported by a minority of the electors, or, in other words, governments *not* wanted by the majority of the electorate. The 1964 Election brought out sharply the obstacles placed by the present electoral system in the path of third or smaller parties. The Liberal Party, with 3.1 million votes (11 per cent of the total), is represented in Parliament by only nine M.P's, out of a total of 630.

One of the stock arguments regularly produced to justify the present system, is that, whatever its weaknesses in democracy, at least, unlike "Continental systems", it always provides a stable one-Party government.

Contemporary history makes mock of this assumption, but so does the history of the last half century. In the General Elections of 1923 and 1929

[1] *Electoral Reform*, C.P.G.B. 1965, 6d.

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no Party received a majority. In 1950 and 1964, governments were returned with the *barest* majorities; whilst in 1931 and 1935 "National" Governments were returned, which though Tory-dominated, were nevertheless coalitions. As the Communist Memorandum states:

> "in six of the last General Elections, the electoral system has not provided results corresponding to the claims made for it, and minority, coalition and tiny majority governments returned in them ruled Britain for almost half of the past forty-one years."

After laying out in the second part a series of specific criticisms of the existing system, the Memorandum, in the third part, puts forward the Communist proposals for reform. It outlines ten proposals dealing with proportional representation, House of Lords, Broadcasting Time, Election expenditure, Expenditure by outside organisations, the Deposit, Age of Voting, local elections, the Register and the Postal Vote.

Certainly, amongst the most important are the first and the third—Proportional Representation and Broadcasting Time.

The Party proposes the adoption of the single transferable vote form of proportional representation with a regrouping of the constituencies into larger areas returning between three and seven members according to their size. This, incidentally, was the method recommended by the 1917 Speaker's Conference.

Broadcasting time, the Memorandum proposes, should be allocated to all national political parties on the basis of units of ten candidates. Between elections, it should be divided among the Parties on the basis of the number of candidates at the preceding Election.

No summary can do justice to the carefully argued criticisms and suggestions set out in the Memorandum, which gives an excellent basis for study and discussion.

Votes at Eighteen

One of the specific proposals made by the Communist Party (and one that it has long defended) is that young people should be given the vote at eighteen. On this particular issue the Young Communist League has submitted a well-argued Memorandum to the Speaker's Conference.[2]

The struggle for the extension of the suffrage in Britain, the struggle to set aside step by step all the manifold restrictions, qualifications, limitations, has a long history. In this long history the issue of the *age-qualification* has, in general, been neglected. Herbert Finer, for instance, who is certainly far from Communism, in his study of *The Theory and Practice of Government*, noted in his section on "Who May Choose Representatives?":

> "I have nowhere met with a rational argument concerning the proper age to vote; it has been stumbled into without consideration."[3]

It is interesting that whereas he is able to supply a long bibliography on property, educational, racial and sex qualifications for voting, he gives no bibliographical reference for the age qualification. The Y.C.L. anyhow, was not deterred by previous neglect of the subject. Its Memorandum shows that the 21 voting age was not so much "stumbled on" as linked with the 21 "legal majority" which itself was strongly linked with the ownership of property. In any case, it points out, the legal majority at 21 is today hopelessly confused and antiquated.

Youth, the Y.C.L. argues, are today better educated, whatever the weaknesses in the educational system. Around 2½ million young people between 18-21 work for a living (and are regarded as adults by the Ministry of Pensions and National Insurance). More and more young people under 21 are getting married and bringing up families. Young people between 18-21 are taxed as adults and sometimes sent to war as adults. Most political parties give young people of this age the right to become members and so do most trade unions.

It *is* indeed true, the Y.C.L. claims, that, never in the history of Britain have so many young people of 18-21 taken so active an interest in political questions, but that, surely, is a strong argument *for* giving them the vote.

It is 270 years since the Act that formally fixed the voting age at 21. Many qualifications have already been swept away in the long historic process of struggle for extension of the suffrage, yet these young people are still deprived of the vote and unwillingly included in those queerly-assorted categories—foreigners, felons, lunatics, peers.

The time is ripe, the Memorandum concludes, to carry:

> "the extension of the suffrage one stage further, to complete the historical process, and give the young man and woman of 18 to 21, who is today a literate responsible citizen, that normal right of citizenship—the vote."

An Index of Inequalities

Whilst on the voting system it is important not to forget that the achievement of the right to vote and even the most admirable system of voting does not by itself provide an *equal* status in society.

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[2] *Memorandum on Votes at Eighteen submitted by the Y.C.L. to the Speaker's Conference on Electoral Reform*, Y.C.L., July 1965, 6d.

[3] *The Theory and Practice of Modern Government*, 1-vol. edition. Methuen, 1956, pp. 235-236.

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Women won the right to vote at the same age as men some 40 years ago, but how far they still are from an equal status with men in British society can be appreciated by studying an admirable booklet recently published by the National Council for Civil Liberties and based on research carried out by the Data Research Ltd.[4]

Discrimination begins, the booklet argues, if not in the cradle, at least in the early stages of education. Often by the age of eleven, even within co-educational schools, the curriculum is divided into "boys' subjects" and "girls' subjects", and whether in separate schools or in co-educational, the assumption is made that "woman's place is in the home" and that men can contract out of responsibility for home work. In fact "statistics refute the idea that women are mainly occupied within the home, but the tradition persists" (p. 4).

Prejudice and lack of opportunity conspire jointly, at a higher educational level, to keep girls from the study of science. The figures provided (p. 5), in a country so desperately needing a scientific development, are frightening.

By the time the student reaches university age, "the discrepancy is glaring". In 1961 74.6 per cent of university students were men and only 25.4 per cent women.

When it comes to prospects for employment the same discrimination persists in the big majority of fields. Only one girl entering industry for every six boys obtains an apprenticeship, and these are restricted enough for the young lads. Of those girls who manage to become apprentices, more than half go into "service trades" including hairdressing, one-quarter into distributive trades *and only a few hundred into the engineering and allied trades*. "The highly skilled sections of the engineering industry are closed to them and the same applies to the skilled section of the chemical industry" (p. 8).

In Figures

The booklet gives many revealing statistics. Here is an extract from one table, compiled from the 1961 Census Figures of the numbers of men and women in various professional and technical groups:—

Category	Males	Women
University Teachers	6,190	560
Civil, Structural, Municipal Engineers	16,790	10
Technologists	22,020	140
Chemists, Physicists and Biological Scientists	29,710	1,950
Electronic Engineers	3,440	20

[4] "*Women*"—A Civil Liberties Publication, 2/6d.

Most professions are today open to women *in theory*. As so often there is an enormous gap between "having the right to be" a Judge or a Senior Civil Servant and finding the possibility of exercising that right. Less than one in twenty of all practising barristers are women (p. 11). "There has never been a woman judge in the High Court." The B.B.C., says the booklet, gave equal pay to women already in 1926, but "out of about 150 top jobs in the B.B.C. only about half a dozen are held by women" (pp. 11-12).

In the Civil Service "the principle of equal pay . . . was accepted in 1955 after a long struggle. . . .", *but*, and it is a big *but*, "there are no women in the higher levels of the executive class or above in the Ministry of Defence, Admiralty, H.M. Stationery Office, or in many of the small government offices" (p. 15). Indeed in the whole Civil Service there are only 189 women in the administrative class out of a total of 2,482. In the Foreign Service there are 23 out of 750.

The Civil Liberties study takes you through the professions, then proceeds to examine the question of unequal pay, turns to the persisting inequalities of married women and ends with a section on women in public life. *It is a sort of index of inequalities.*

Those who know anything of the history of the women's movement know that nothing was achieved without struggle. They also will know how much still remains to be done. Inequalities in pay, in employment, in education, in the courts, are all related. And in all these fields what is needed is continued struggle—not just of women in isolation—but of women and men together.

The U.A.R. and Socialism

In view of President Nasser's forthcoming visit to the Soviet Union, it is useful to consider some of the views now current in the United Arab Republic where the people are assessing the results of thirteen years experience since the 1952 revolution. Enormous changes have taken place since then—large-scale land reform, the nationalisation of foreign and large-scale domestic enterprises, and the building up of national industry, of which the Aswan Dam is symbolic.

Among the questions being discussed is that of the fate of the new lands which will become available through the completion of the Aswan Dam. The country's sown area is expected to increase by no less than a third. The big problem is: Who should own this land? And how should it be managed? Most of the discussion so far has emphasised the advantages of large-scale state farms in place of private holdings. In view of the fact that these new lands are expected to be the chief suppliers of agricultural produce for the urban population, it is

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clear that decisions taken on this matter are vital for the whole future of the U.A.R.

The important economic and social changes that have taken place in the U.A.R. are accompanied by a deep-going examination of many ideological questions. The whole question of socialism is under discussion, and increasingly the viewpoint of scientific socialism, specifically supported by President Nasser in a recent speech, is winning support and understanding. A new theoretical journal, *Al-Talia* (The Vanguard), initiated with the support of President Nasser, is helping to popularise socialist ideas. In its July issue it explains the necessity for the U.A.R. to take the path of non-capitalist development in these words:

> "Our people have long directly associated colonialism with capitalism. British colonial domination in Egypt was nothing but the rule of British capitalist monopolies. In the course of national struggle, the progressive forces of our country opposed the capitalist road of development, which presupposes primitive accumulation through the robbery of the working classes. But the problem was not confined to the refusal of the people to follow the capitalist road of development of the country. The fact is that capitalism has already proved its inability to ensure the necessary economic development of Egypt. On the world scale, too, degrading capitalism is unable to show an example to a country which has recently gained independence. *The world socialist system is developing rapidly. Socialism as a progressive social system has been able to show in practice its great advantages over capitalism. Socialism ensures a colossal growth of productive forces, abolishes in the interests of society as a whole the destructive contradictions between the social nature of labour and the private appropriation of its fruits.*"

Tanzania Tackles Bureaucracy

Significant progress has been made in Tanzania in the recent period, and a number of important initiatives are being taken by the Government and the ruling party, TANU, to limit bureaucracy and privilege and enhance the position of the majority of the people. There have been considerable discussions on the whole problem of democracy in a one-party system, and constitutional changes are being introduced with the aim of safeguarding the democratic rights of the people.

Addressing the National Assembly on June 8th, President Nyerere proposed the setting up of a special Permanent Commission on the Abuse of Power which would have the function of investigating people's complaints and protecting individual liberty "within the context of our socialist society". The President explained his proposal in the following words:

> "The nature of our economic problems in Tanzania demands that many officers of the Government, the Party, and the law itself, should be entrusted with great powers over other individuals. At the same time our recent history, and the educational backwardness of the majority of our people, means that automatic checks on abuse of power are almost non-existent. To the people in the villages and scattered homesteads of our wide country, it is the policeman, the magistrate, the T.A.N.U. official or the Government officer, who represents Government in their everyday life. And in the District and Regional Headquarters it is the Commissioner who wields direct and effective power in a manner which affects the life of our fellow citizens. This is inevitable and necessary. Only by entrusting real responsibility to such people can our nation be transformed. But we have to recognise that these powers can be—and have been—abused. And the sufferers are the people on whose behalf government is, and should be, conducted.
>
> "*It is intended that the Commission on the Abuse of Power should receive and investigate complaints by the people of this country, and that it should submit reports and make recommendations to the President. The people will have direct access to it. The Government believes that the operation of such a commission should help to make a reality of the political equality of all our people, and of their individual freedom within the context of our socialist society.*"

There's a Megabutton

Unity Theatre's new play—now running—is a comedy. The theme is responsibility and apathy in the face of thermo-nuclear annihilation. It is called "There's a Megabutton on My Living Room Floor" and has been written by T.V. playwright Stuart Douglass.

Produced by Brian Murphy, the play leans heavily on the "Theatre of the Absurd". The author admits to having been influenced by the convention of Max Frisch's "The Fire Raisers" in treating his subject. "When the protest against the bomb was at its height," Stuart Douglass says, "there were several plays which dealt with the nightmare of nuclear war. 'Offshore Island' was one of them. Without exception these plays dealt with a situation existing *after* the bomb. Nothing had been produced which explored the condition existing before the button was pressed. Apathetic attitudes which were prevalent at that time (still current now) were the chief target of the C.N.D.'s campaign and yet no play was written reproducing and analysing them.

"It was when I saw 'The Fire Raisers' that I realised how this could be tackled. At first I jibbed at the thought of writing a comedy about such a horrifying situation but the readiness of playgoers to accept the formal level of the absurd softened my fears. Whereas 'The Fire Raisers' dealt with its subject on the abstract level (the bomb was an explosion in the attic) I decided against the abstract

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because I felt that the point was best made with a minimum of symbolism.

"I hope that my play shows not only those apathetic attitudes. I have set my play at a time when dynamic militant activity is necessary to preserve peace. I have also attempted to examine the pressing of the button in relation to the claims that are made for the so-called 'democracy of the free world'."

The story concerns Harold Freeman, a middle-class factory manager, his wife Margaret, his 84-year-old father and his son, a member of the C.N.D. They live in Wembley. Their house is surrounded by tanks one night and they become the centre of a mysterious operation. Slowly it dawns on Harold Freeman that he has been "democratically" chosen to press the button at dawn, the button that releases the missiles against the Soviet Union. The play studies the involvement of the family towards this catastrophe.

Books to Come

Lawrence and Wishart have now announced their publications programme for September–November, which includes several important and exciting new books. A new edition of *Men Machines and History* by Sam Lilley presents the development of technology from the earliest times to the present day. It contains a full treatment of technological developments of the last twenty years and of their far-reaching social and political implications.

Education and the Labour Movement by Brian Simon continues his "Studies in the History of Education", and *Marxism and the Linguistic Philosophy* by Maurice Cornforth contains a full and critical account of tendencies in modern philosophy as well as a provocative discussion of questions of logic and ethics from the viewpoint of Marxism.

The Concept of Freedom by Christopher Caudwell will bring within the compass of one volume the best of his "Studies in a Dying Culture" together with "The Crisis in Physics"—the latter has been out of print for a long time. These famous writings of the thirties will be found to retain all their freshness and originality; in some ways they seem even more apt today than they were when first published. Simultaneously Caudwell's *Poems* are being reissued. Of these it was said: "Had Donne been faced with the problems of the modern world he might have written poems not altogether unlike these".

The Freedom of Art by Honor Arundel is a new paperback. It contains a most stimulating and provocative discussion of the role of the arts in contemporary society.

Does Music Matter?

Sometimes profounder things are said about the Arts in works dealing with some special aspect than in those seeking to generalise. Irène Armitage has written a booklet *Does Music Matter?* (Workers Music Association, 2s.), which could be called "Music in Schools" and which gets to the heart of some basic problems.

Music as a subject has always been neglected and regarded as a luxury; and now development of science and technology means that more and more emphasis is properly placed on the Sciences and Mathematics. Mrs. Armitage quotes Christopher Caudwell:

> "Art is the science of feeling, science the art of knowing. We must know to be able to do, but we must feel to know what to do."

and she writes with great eloquence of the essential place of the arts—the creative arts, not "arts" in the academic sense—in the education of every child.

The booklet also deals very ably with its own subject, makes trenchant criticism of present arrangements and of present attitudes, with valuable suggestions which are in no way Utopian. There are interesting contributions from other writers with experience in music teaching.

Mrs. Armitage again shows her awareness of fundamentals in facing up to the problem of the approach to children much affected by "pop", advertising, and debased capitalist standards in general. She writes:

> "The academic training of the professional musician is still largely based on the classical and romantic music of the eighteenth and nineteenth centuries and ignores folk music and jazz, though these are very much the concern both of the music students and of the children they are going to teach."

and

> "The teachers who seem to me to be coping most successfully with this problem are the ones who go into the classroom with guitar or banjo and sing a negro blues or industrial folk song. They start with something not too unlike what the children know, but it has a content and sincerity which can make it a starting point of interest and discussion—who made the song, and why? What were the conditions which produced it? Are the tune and the words both sad, or only the words?"

There is food for thought here for those concerned with every one of the arts, not music alone.

CORRECTION

In the article "Vietnam Background" (*Marxism Today*, July) the two participants from Vietnam in the Geneva 1954 Conference should read: the representative of the Bao Dai regime set up by the French, and the Democratic Republic of Vietnam.

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Recent Economic Changes in Socialist Countries

Maurice Dobb

IT would be surprising indeed if the economic problems, and the mechanisms appropriate to their handling, were not different today in socialist countries of Eastern Europe from what they were three decades ago in the Soviet Union. True, one cannot speak of the socialist countries of Eastern Europe as a uniform group. They remain at different levels of development, despite a significant levelling-up of their economic conditions and potential over the past twenty years. During those twenty years they have gone through an intensive process of industrialisation, and at least the foundations (if no more) of a socialist economy have been laid. A country like Czechoslovakia represents a high level of industrial development comparable to that of countries of Western Europe; similarly East Germany; and so to a lesser extent do Poland and Hungary. The pace and degree of industrial development in the Soviet Union since the 1930's are well-known. By contrast, in the decade before the war the Soviet Union was still in the middle of her "big push" towards industrialisation and towards laying the foundations of a socialist economy.

The Period of Rapid Industrialisation

In those days the main economic tasks were in one sense simpler, even if their successful achievement was difficult and involved heroic efforts. The order of priorities was comparatively simple. The global objectives can be summed up as being the achievement of the highest possible rate of growth, subject to the maintenance of certain necessary living standards (*plus* the requirements of a system of differentiated incentives to production) and of certain necessary social expenditures (e.g. for education and public health). To this end the existing economic potential had to be so harnessed, and available resources including labour-power had to be appropriately mobilised, as to concentrate these upon key objectives.

In such circumstances it was inevitable that planning and direction of economic life, and of key decisions about new investment and production, should become highly centralised. Not only was the order of priorities simpler in such circumstances, as we have said, but the complex of decisions to be taken by the central authorities was also simpler because the decisions to be taken were fewer. Investment was concerned in the main with a number of large construction projects like the famous Dnieprostroi, key steel plants like Magnitogorsk, engineering works like the Gorki motor-factory or the Stalingrad tractor-plant. Over a wide range of industry products were deliberately standardised (in the interests of securing economy of "long runs" of output): particular examples were tractors, motor-cars and machine-tools. To this extent the fixing of output-targets was simplified: the number of targets to be set was not very large, and they could largely be set in terms of physical units (e.g. so many lorries or tractors, or in conventional units as in tractors of given horse-power); whereas less standardised, heterogeneous products have to be measured in *value* units, with the complication that the value-total can be affected by shifts (merely) in the composition of the output-total (i.e. a rise in some items and a fall in others—what is called in Soviet planning jargon a shift in the "assortment"). Moreover, to the extent that a particular type of product was specialised to a particular plant, the working-out of the so-called input-norms or coefficients was very much simplified, and also the supply-allocations (of materials and components) based upon these input-norms.

Another feature of this earlier period, when the order of priorities was both clear and relatively simple, was that if the priority-sectors suffered from bottlenecks in supplies or in necessary equipment, these could be fairly quickly dealt with by a scaling-down of the targets for non-priority sectors, with a release of resources for transfer to the former. (This had been a familiar feature of the civil war period under "war communism", as indeed of *any* war economy.) Such bottlenecks could occur, either because input-norms had been too strictly calculated and the "balancing" of needs against supply-availabilities had been too summarily and approximately done, or because unforeseen hitches had occurred in producing the supplies and components needed by other industries—or yet again, perhaps, simply because the priority industries in question had succeeded in *over*-fulfilling their targets. In such a situation retardation and dislocation will occur unless *either* sufficient reserves exist (an expensive

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luxury in a rapidly developing economy) *or* the necessary supplies can be diverted from low-priority sectors.

Thus in the pre-war decade, when growth and maximum saving of time were the prime objectives, these low-priority sectors (mainly industries producing consumers' goods) provided such a "reserve", and their targets tended to be pruned when there were hitches elsewhere or when rearmament needs in face of the Nazi menace required an upward revision of plan-targets in defence industry or heavy industry. There was much talk in those years about each five year plan having its specific "key" objectives and sectors of concentration. It followed as the obverse side of such concentration that there must be industries or sectors of *non*-concentration that were treated as "residual" so far as the allocation of scarce resources was concerned—in other words, these got what was left over.

Over-centralisation and New Situations

Whenever for any reason anything went wrong and plan-targets failed to be fulfilled, the natural tendency was to deal with the situation by direct administrative intervention from the centre and by more detailed specifications and directives. Thus planning became more detailed, and industrial managements became increasingly hemmed in with obligatory indices or "limits"—wage-limits defining the size of their total wage bill or stipulations about their output assortment as regards lines, qualities, styles or models. This was an understandable reaction when saving time and "beating the clock" was at a premium, as was the case in the pre-war years. But it meant that planning became progressively more complex; decisions on a lot of particular questions were taken at top levels that inevitably were distant from the actual production situations to which these decisions applied; and the discretion, initiative and freedom of manoeuvre of factory and enterprise managements was increasingly fettered.

This tendency to over-centralisation (as it was eventually to become) was continued in the period of post-war reconstruction; and, in the newly-established "people's democracies" of Eastern Europe in the period of their own industrialisation drive between 1948 and the middle '50's, the system was mechanically copied and too indiscriminately transplanted on to their own soil.

After this period of rapid growth with comparatively limited key objectives was over, the highly centralised system associated with it became increasingly unsuitable. Planning problems and planning decisions had now become more complex (as to some extent they always had been in the most industrially developed of the "people's democracies"). Not only was it that the *number* of products (and varieties or lines of a given product) had grown enormously, also the number of different plants producing a given product as well as the aggregate number of plants in existence, but the essential nature of planning and of supply-allocation had changed in a quite fundamental way. It was no longer a matter of concentrating on certain key objectives and treating everything else as residual. Now that socialism had been firmly built in U.S.S.R. (and at least the foundations of socialism laid in other countries), it was time for the efforts and sacrifices of the "heroic years" to bear fruit in a rising standard of life, and "the growing resources of industry" to be "used more and more to meet fully all the . . . household and cultural needs of the population" (as the new C.P.S.U. Programme of 1961 has it). All-round satisfaction of consumers' needs, as well as growth, was the order of the day.

This was expressed, *inter alia*, in the fact that since the early '50's the sector of industry producing consumers' goods has grown at a pace approaching that of so-called Group A producing means of production or capital goods (in addition to which some branches of the latter have taken up the production of durable consumers' goods). The days when unqualified priority was given to heavy industry are over; and emphasis on light industry, such as clothing and food-processing industries, and the need to bring production of these into much closer touch with consumers' demand, are now on the agenda. This represents a crucial qualitative shift. The retail market for consumers' goods has always (outside special years of rationing) constituted a market in the full sense, where commodity-relations and the laws of the market (the "law of value") unquestionably hold sway. Hence the relationship between production and the market is different from that in industries concerned with producing capital goods, where production is largely a "circular process" in which outputs are fed back as inputs for so-called "productive consumption" within the same sector or department. (Although many are saying today that even the capital goods sector is characterised by commodity-relations, so far at least as the production of means of production destined for use in consumers' goods industries is concerned.)

Planning and Market, and Incentives to Productivity

A numerical illustration of increased complexity is that when the Central Statistical Administration in 1959 drew up what is called an input-output matrix (or table) for main products, this covered 65 industrial sectors or branches and nearly 200 products; but the official industrial nomenclature

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list of 1960 contained as many as 15,000 product groups. The "system of balances"[1] (which is crucial to planning methodology) operated before the war with some 400 to 500 items and today with something in the neighbourhood of 1,500—and even these cover less than half of all output in value. This number of balances could scarcely be calculated and re-calculated in the time available without the aid of electronic computers. Similarly in Poland the number of products included in the system of balances is between 400 and 600. In the pre-war dozen years alone about 9,000 new large-scale Soviet industrial enterprises were put into operation. In the single year 1963 more than a thousand new large-scale industrial enterprises entered upon activity; and in total the Soviet Union today has more than 200,000 State enterprises. In a country like Czechoslovakia the number of centrally approved planning targets by 1953 (though they were reduced later) had reached a total of 2,251, and the number of centrally allocated goods as many as 974. It is said to produce today all-told a million and a half types of output!

The changed structure and relationships of production characteristic of a settled and established socialist society are sometimes spoken of in terms of the relationship between planning and the market; alternatively in terms of economic instruments and incentives governing production, by contrast with administrative methods and administrative directives or orders. A restatement of the connection between planning and the market has been put by Professor Ota Šik of Prague (of whom more later) in the following words:

> "Until recently the connection between planning and the market was incorrectly understood and the concept of the market was applied to a socialist economy in a sort of shamefaced way. It was held, wrongly, that planned social co-ordination, planned management of production, was the absolute antipode of orientation on the market, of utilising market levers. Planning was assumed to be an attribute of socialism alone, and production for the market a feature solely of capitalism. These tenacious theoretical premises brought much harm; because of them a system of planning and management was adhered to which meant that production could not be adequately geared to its proper aim—that of satisfying the home and foreign market demand—and consumers could not exert any direct influence on the producers . . . Socialist planned production should consistently seek to satisfy the market demand, and sales of goods on the market should be the main criterion of the social usefulness of labour expended in the production process." (*World Marxist Review*, March 1965, p. 17).

Yet a further respect in which the economic situation is different in the '60's from what it was in the '30's in the Soviet Union (and in the immediate post-war years in other socialist countries) is the passing of the previous situation characterised by the existence of an agricultural hinterland of surplus labour on which industry could draw. As industry grew in the past, employment grew with it and most of the new labour force was drawn in from the countryside. Mechanisation of agriculture was itself labour-saving and was an additional factor in releasing labour for industry. Although it is probably true that many collective farms are still overstocked with labour compared with what is economically necessary, this older situation of a labour reserve for industry to draw upon is passing, or has already passed, in the most industrially developed countries of the socialist camp.

It follows that for industry and the industrial potential to expand further, it is necessary to introduce continually more labour-saving methods of production, on the basis of new and improved techniques. Technical progress is not something that can be arranged by directives "from the top": it requires continuous initiative and zealous search for innovation at the place of production. Hence the urgent necessity in the new situation of affording the maximum stimulus at the factory and workshop level to pioneer new technical methods and constantly to raise the level of labour productivity thereby.

Defects of the Old Methods

Since the working out of new, more decentralised methods was preceded by several years of criticism of the defects of the old over-centralised system, something should first be said about the latter. Some of these defects have been cited so often as to have become by now pretty familiar. In the first place, there are the numerous stories of how the various ways in which production targets were measured gave a bias to the form in which the target was fulfilled. To the extent that there was latitude at the plant or enterprise level regarding the type of product to be turned out, the management not unnaturally took advantage of this so as to achieve the target in the *easiest* possible way (and the fact that managerial and technical staffs were awarded a bonus for plan-fulfilment that represented a sizeable addition to their salaries was an added inducement to do so).

[1] A "balance" for a product consists of all the uses for it listed on the one side, and all the sources of supply of it on the other. Thus it can be thought of as an equation of supply and demand. Whenever a plan target is altered, all the relevant balances have to be recalculated and supplies or uses readjusted to secure a new "fit". The repercussions of an initial change may be very extensive; but the time-factor usually limits the area over which recalculation is possible.

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Thus, if output was measured in weight, it paid to make objects heavy rather than light. A stock example was bedstead-design, where it paid to make them large and ponderous in preference to lighter and more numerous. Similarly with glass and paper, and the tendency to spin thicker yarn of lower count in preference to higher counts. Another example was nails: *Krokodil* once had a cartoon of the workers of a nail factory bearing aloft in procession one giant nail, the cartoon being headed "The Factory Fulfils its Plan". In other cases surface area was the measure; and *Pravda* quoted the example of an inventor of a new and much more efficient type of boiler who could not persuade anyone to adopt it and put it into production; the reason being that output plans for boilers were expressed in terms of surface area, which the new type reduced.

One might suppose that such difficulties would be avoided if production targets were expressed in terms of value (that is, at current wholesale prices). However, this was not so, since it was traditional to calculate value for this purpose as *gross* value, i.e. the final value of the product in question (say, a piece of clothing or a tractor or a motor), *including* all the materials and components produced at earlier stages of production by other enterprises and possibly other branches of industry. This was found to encourage an enterprise to concentrate on so-called "material-intensive" types of product: i.e. types which embodied relatively much material purchased from outside the enterprise compared to the actual value-added within the enterprise in question.

Thus, human nature being what it is, the production of a given yardage of cloth made from expensive rather than cheap materials was encouraged, or tools made from high-quality steels rather than from lower-quality, which would have served almost as well and would have released the scarce better steels for more important uses. This was encouraged because the plan was more easy to fulfil in this way; and it was hardly surprising that managements under very great pressure to fulfil their targets (in disgrace if they didn't, as well as losing their bonus) should have taken the line of least resistance. To this reason has also been attributed the shortage of spare parts (e.g. for tractors and machines of all kinds) which at times assumed critical proportions: when a factory had made a particular part, this would book-in more towards plan fulfilment if it were combined with a lot of other components (made elsewhere) to assemble a completed tractor than if it were sold separately.

It might seem that these difficulties are not very fundamental and could be met by minor changes, involving no radical alterations in the methods of planning and management. To some extent this is true: for example, gross output as a basis for judging plan-fulfilment was changed to *net* output (or "value-added") over a large part of Soviet light industry; and after 1959 the former was abandoned in all but a few industries as the basis for premiums to managerial and technical staffs. Similarly in Poland *net* output was adopted *in principle* as far back as 1957, and would long since have been adopted generally but for the slowness of industrial administrators to abandon traditional methods for a new one.

Nonetheless the defects we have referred to have an importance for this reason: it is because the traditional indicators of plan-fulfilment, with their emphasis on purely *quantitative* fulfilment, have defects of this kind that attention has recently been turned towards some alternative and "synthetic" index, which we shall see in the proposals of Liberman and others has been found in the *profitability* (in a balance-sheet sense) of the productive activities of an enterprise. Almost any *particular* index of the sort we have been describing has a distorting effect of some kind upon output-assortment.[2]

Negative Effects on the Enterprise

To come, however, to three defects of the previous system that are certainly more fundamental.

Firstly, emphasis on purely quantitative achievement, whether as a mere "success indicator" or as a basis for material incentives, has been found to conflict seriously with improvements of quality, and with the introduction of new products and of novelties in design. Yet in an age of technical progress and rising levels of consumption, the introduction of new products and the widening of variety is as important as increasing the output of an existing range or "menu" of products. Because capitalism in the age of admen and high-pressure salesmanship carries novelty and variety to a ridiculous and wasteful excess, there is no reason to go to the opposite extreme and to deny them any place in a rational socialist society. Yet to introduce a new product, whether a new machine or a new line in consumers' goods, usually involves time and trouble. It involves experimentation and trial runs, which interrupt the production-flow, possibly some reorganisation of the production-line, and even re-tooling. A manager who is under pressure to fulfil a quantitative output-target will heartily

[2] Of course, with profitability as the index, assortment may be affected if the profit margins on different lines of output differ appreciably. This is why a reform of the price system, as well as more frequent adjustment of prices in line with changed costs, is a logical accompaniment of other changes.

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grudge such delays and concentrate on uninterrupted production of the old product, whether consumers are sated with it or no.

Secondly, the management of an enterprise will obviously have an easier life and be more likely to reach the plan-target, the more leniently this target has been set in relation to the productive resources and capabilities of the plant in question. There will be a temptation to get technical "norms" or co-efficients leniently set and to conceal reserves of capacity if these exist. It has to be remembered that the planning authorities inevitably rely to a large extent on the enterprises themselves to supply them with the essential costing-data on which such norms are based. True, the planners have certain means of checking the data supplied to them, such as investigations made by local planning representatives and comparing the results of like-situated enterprises. But an overworked planning apparatus cannot check every item of information it receives from more than 200,000 enterprises; and in practice it is the case that the management of a large enterprise has an appreciable say in the targets and norms assigned to it. There is a saying, at any rate, that a wise manager may overfulfil his plan by four or five per cent but never by as much as twenty: if he did, he could hardly fail to have his plan-target stepped-up sharply next year. In the past there was a tendency for the planning authorities, suspecting that what came up from below erred on the "soft" side, to over-compensate by what was called "over-tight planning"—setting targets higher (and norms lower) than were attainable without special effort and strain. This served to penalise the conscientious and to have negative consequences of its own in the shape of failures to deliver necessary supplies by the stipulated date (with resulting dislocations of production-schedules at the receiving end) and accentuated shortages.

To quote Professor Šik again:

> "It is common knowledge that in the past enterprises sought to obtain maximum allocations for investment irrespective of anticipated returns, and as big a labour force as possible, while keeping production tasks to the minimum. Owing to this, plans were finalised largely on the basis of subjective considerations and compromises between various management bodies."

Thirdly, experience has shown that there has been too little economy of plant and equipment, and too little care taken to put it to the best use and to maintain it. This is because hitherto the cost of using (or of non-using) equipment has not been made to impinge upon the enterprise. The size of so-called basic funds (or fixed capital) does not affect the costs of output, and the provision of new equipment is made by a free grant to the enterprise from the State. To this extent the fault lies in the price system rather than in the system of management. But the more the system of management is decentralised, the greater the influence of defective prices; so that the two questions are inevitably intertwined and cannot be separated.

Profitability and Khozraschot

Before describing the new or proposed changes, another brief excursion into history seems to be desirable, in order to make clear what has been the traditional role of the enterprise, and also the part played by "net income" or profit as an accounting category and an incentive (of which bourgeois journalists seem to be perversely ignorant). As far back as the early '20's, in the days of Lenin, the principle of operational and financial independence of the individual enterprise was established on the principle of what was known as *Khozraschot* (meaning responsibility for its own outlays and expenditures and for balancing these with the financial receipts resulting from its activities). This principle was again affirmed in 1928 on the eve of the First Five Year Plan, and remained as an unchallenged principle throughout the pre-war decade and after. To balance its accounts and show a profit was one, at least, of the necessary conditions of successful performance by an enterprise. Moreover, in the later '30's (1936) a specific profit-incentive was added in the shape of the Director's Fund (later called the Enterprise Fund); payments into it being made as a certain proportion of profits, and expenditures from it being designed for purposes beneficial to the enterprise, including bonuses to its staff. Thus profit as a criterion of successful productive activity has always existed and is an original Leninist principle (just as is the use of "material incentives" generally, i.e., "payment by results").

True, it came in the '30's to be increasingly overlaid, both as a criterion and an incentive, by quantitative plan-targets and bonuses geared to their fulfilment; also by a series of other incentive payments geared to other so-called "qualitative indices" (introduced at various times in attempts to redress the purely quantitative bias of the plan-fulfilment incentive). Moreover, payments into and from the Enterprise Fund were hedged in by various conditions (e.g., prior fulfilment of the main targets and indices); its use for incentive purposes was subject in the U.S.S.R. to a pretty low ceiling (5 per cent of the total wage-bill) and so had comparatively little influence; and in some cases the Fund came to be used as a source for financing investment-expenditures initiated by the management rather than for incentive-payments, collective or individual. This is why the question of resurrecting it in a new and more comprehensive form has come upon the agenda in recent years: moreover, of relating it in

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some way or other to the size of the total capital employed by an enterprise (its "basic and turnover funds"): i.e. treating it for purposes of calculation as a profit-*rate*.

After all that has recently been written (by Liberman himself and others) it should hardly be necessary to emphasise that profit as the net income of a socialist enterprise has an altogether different significance from profit as an economic category under capitalism. But in view of the confusing talk of so many bourgeois commentators, and of those with Chinese Party leanings, this perhaps needs underlining. For one thing, when selling-price is fixed (i.e. fixed by higher authority) the enterprise cannot make a profit by restricting output and *raising its price*: it can only do so by enlarging its output to the maximum and by lowering costs (i.e. being more efficient than the plan budgeted for).

This comes out clearly in several of the documents in a very interesting and timely collection entitled *Planification*, published in June of this year by *Recherches Internationales à la lumière du Marxisme* in Paris.[3] For example, Liberman, in his contribution to the *Pravda* discussion of September 1964, declares:

> "Our profit, if one starts from the fact that prices correctly reflect the average costs of production of the branch [of industry], is nothing else but the effect of increasing productivity of social labour expressed in a money form. That is why we can, in basing ourselves on profitability, encourage real efficiency of production. At the same time encouragement is not enrichment. Profit cannot be transformed into capital, since no one can privately acquire means of production with his bonus, neither the manager nor the trade union nor individuals" (*ibid.*, p. 127).

And in his original and much-quoted article in *Pravda* of 9th September, 1962, he declared:

> "Our profit has nothing in common with capitalist profit. The nature of categories such as profit, price, money are quite different with us . . . Our profit, with planned prices and utilisation of net income for the good of the whole of society is the result and at the same time the measure of the real effectiveness of labour expenditures" (*ibid.*, p. 31).

Similarly an article by Sukharevsky (from *Kommunist*), after maintaining that

> "the index of profit possesses various advantages over that of [reducing] prime cost from the standpoint of stimulating enterprises,"

goes on to say that

> "the level of profit reflects at the same time quantitative and qualitative indices of the functioning of an enterprise. If the prime cost per unit of production remains unchanged when the volume of production is increased, the mass of profit increases. The lowering of prime cost does not depend as directly as the size of profit on the extension of production. . . . The size of profit depends on the realisation of production at least by the wholesale centres. The cost-price of market production reflects the cost of production without taking account of whether production has been sold or remains in the depots of the producing enterprise" (*ibid.*, p. 139).

The Start of Decentralisation

Actually, the tendency towards some decentralisation in planning is to be dated from the middle '50's. Yugoslavia as early as 1951 (three years after her unfortunate, Stalin-provoked, break with the Soviet Union) initiated an extensive decentralisation which gave individual enterprises as much independence as Soviet "trusts" had enjoyed during the NEP period in the '20's; and which also made wages and salaries vary (above a basic wage) with the "net income" of the enterprise in which the workers in question were employed.[4] At the same time long-term (e.g. five year) planning was terminated. Elsewhere it was in the course of 1956 that moves were first made (notably in Poland and to a smaller extent in Czechoslovakia and U.S.S.R.) to reduce the number of targets fixed in the central plan and also the number of products allocated at topmost levels, leaving the remainder to be determined at some lower level (in U.S.S.R. mostly at the level of the separate republics). Curiously, at this time economic discussion mainly centred on the question of price policy (also on the use of mathematical methods); although in Poland there was also some discussion of so-called "economic models", or modes of economic functioning, in a socialist economy (e.g. the work of Professor W. Brus).

In 1957 in the Soviet Union came Khrushchov's sweeping decentralisation on a regional basis: substituting control and administration by over a hundred regional economic councils (*Sovnarkhoze*)

[3] No. 47, 1965, Les Editions de la Nouvelle Critique, 13.50 francs. Other items of interest in this 290-page collection, in addition to those cited here, are: recent speeches by Kosygin and by Kardelj; a round-table discussion among economists and mathematicians (including Strumilin, Kantorovitch, Novozhilov); an article by the late Nemchinov and an extract from one by Arzumanian, one by Ota Šik, "To Finish with the Consequences of Dogmatism in Political Economy", and recent resolutions on economic reform of the C.C's. of the C.P's. of Poland, Czechoslovakia and G.D.R. The volume concludes with a most useful Glossary of Terms.

[4] Also introduced was a large measure of self-government within the enterprises. Initially enterprises (or associations of enterprises) could even fix their own selling prices; but this had obvious disadvantages, and centrally fixed price ceilings were later imposed, and in 1962 a Federal Board of Price Control was instituted.

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for that of the previous highly centralised all-Union Ministries. At the same time more responsibility was assigned to republican *Gosplans* (e.g. in fixing prices and in controlling the wholesale sale-and-purchase organisations of various industries). But this change, sweeping as it was, had no more than a minor effect upon the independence of individual enterprises. The activities of the latter were still bounded by various indices and "limits" imposed upon them from above, and the bulk of their supplies were still subject to allocation-quotas fixed by higher authorities (although there was some increase in the category of supplies which could be contracted for directly between enterprises and the appropriate trading agencies, especially in the case of consumers' goods).

In Czechoslovakia in 1957-58 there was an extensive decentralisation which had a very considerable effect in increasing the powers of enterprises. As a result of it, something approaching two-thirds of all industrial investment undertaken came from funds at the disposal, either directly or indirectly, of industrial enterprises (i.e. either enterprises themselves or associations of enterprises for certain common purposes[5]).

The Soviet Discussion of 1962-4

In addition to the kind of criticisms we have mentioned of existing success-indicators and incentives, there has been a strong demand for the financial results of industrial enterprises to be related to the size of their capital, since the technical equipment of an enterprise so largely determines the results it is capable of achieving. There have also been demands that central allocation of supplies should yield place (save for things in specially short supply) to a more flexible system under which enterprises are free to obtain the supplies they need (and to dispose of their products) by direct contract with other enterprises and organisations.

In September 1962 *Pravda* launched the well-known discussion opened by the contribution of Professor Liberman entitled "Plan, Profit, Premiums". He called for a new system whereby enterprises should be freed from "petty tutelage" and a mass of detailed regulations (he spoke of "costly efforts to influence production by non-economic administrative methods"). At the same time they should be governed by an incentive system such that "what is advantageous to society is advantageous to each enterprise" and "what is disadvantageous to society is disadvantageous for the personnel of enterprises." He proposed an incentive scheme under which bonuses to the enterprise and its members should be proportional to its net income or profitability.[6] Once this was introduced, the enterprise would be encouraged to draw up its own production plan. "It is the enterprise itself which knows and can best discover its own potentialities"; and under such a scheme it would be stimulated to mobilise reserves, not to hide them, to raise labour productivity and to cease hoarding idle man-power or equipment. It would be stimulated to win the custom of consumers by producing what was in demand and by attention to quality and the initiation of new products and varieties. ("Note that the system we propose will oblige enterprises only to produce what can be realised and purchased. Enterprises will be led to calculate the effectiveness of modern techniques and cease to ask unthinkingly for no-matter-what new equipment at the expense of the State.")

Two years later, after some experimentation in the interim, the discussion was reopened in *Pravda*, this time with an article by Trapeznikov, an automation expert and a corresponding-member of the Academy of Sciences, in which the substitution of economic for administrative measures of direction and the introduction of a new incentive-system along the lines of the Liberman scheme was strongly urged.[7] The upshot was that the system was extended to 400 enterprises in consumer goods industries, mainly clothing. Latest news is that all textile and shoe factories in the Leningrad and Moscow regions are about to go over to it. The enterprises base their annual production plans primarily on the basis of advance orders from wholesale and retail organisations, and in some cases the enterprises set up their own shops (as has happened for some time in Yugoslavia). The signs are that the system will be extended more widely in the near future.

[5] These associations, which took over some of the functions previously carried out by sub-departments of Ministries, were not organs of administration, but were *Khozraschot* organisations controlled by and acting on behalf of the enterprises themselves.

[6] In his original proposal profitability was interpreted as a *ratio* to basic and turnover funds (i.e. total capital): bonus was to be proportional to profit-*rate*. The scale of payments proposed in the first article was, however, defective; and in subsequent versions of the scheme as adopted it seems to have been changed to one in which bonus is proportional to profit *after payment* to the State of a tax or charge according to the size of total basic and turnover funds.

[7] *Pravda*, August 17th, 1964. It was stated among other things: "The question of the utilisation of fixed capital (buildings, equipment) by enterprises is an essential question. At present this index is not taken into consideration in judging the activity of enterprises. Meanwhile many enterprises endeavour to obtain new investment although their fixed capital is badly utilised." (c.f. *Planification*, pp. 115-6). *Pravda* of June 23rd this year reported that a general conference of economists had endorsed the Liberman proposals.

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Changes in Other Countries

In Czechoslovakia the proposals of Professor Ota Šik, which were adopted in principle by the C.C. of the Czechoslovak C.P. in January of this year, bear a cousinly resemblance to the Liberman scheme, although they have one or two special features of their own. They can be regarded as a crucial step beyond the decentralisation measures of 1957-8. Like the Liberman scheme, they provide for incentives to the enterprise related to its net revenue or profitability, and for enterprises to frame their own annual plans within the framework of the investment- and output-trends laid down in the long-term plan.

The profit of an enterprise will be subject to a prior tax (payable into the State Budget) proportioned to the enterprise's capital. Purchasing organisations and enterprises will be free to choose and to change their own supplies, thus strengthening consumers' control over production; and producing enterprises will be free to change both the materials and the technical methods they use at their discretion. Provision is also made for a more flexible system of price-fixing as well as an early reform of existing prices. There are to be three categories of price: firstly, products whose prices will be centrally fixed by the planning bodies as heretofore; secondly, products where the actual price paid may be fixed contractually by enterprises within certain "price-limits" established by the price-fixing authority; thirdly, products of which the prices will be left uncontrolled and free to vary with the market situation (e.g. luxury items and grades, special-order lines)[8]. The intention is that the new system, after some concrete elaboration in the course of this year, should come into general operation at the beginning of 1966.

In East Germany new methods of planning and of management were adopted by the Council of Ministers of the G.D.R. as far back as July 1963 (extracts from the relevant official document on the change are reproduced in the aforementioned collection *Planification*, pp. 167-199). This also stresses the use of "economic levers" to raise productivity, to improve quality and to bring output into conformity with needs; and to this end it provides for an incentive-system of bonuses[9] related to profits after payment of a tax proportioned to the productive capital. (It is stated that "profit should effectively become the criterion for judging the good management of enterprises and of groups of enterprises".) Enterprises are also to have at their disposal "rationalisation funds" for financing technical innovation. Commodity-money relations (i.e. contractual relations of sale and purchase) between enterprises are to replace the old centralised allocations of supplies. Prices, however, are to be controlled by a State organ " mpowered to sanction the prices of the main products of each branch of industry," these prices to be based on "exact calculation of the costs before and after fabrication."

Similar changes are about to be discussed in Hungary; and Poland is also preparing to introduce changes in a similar direction. These latter include improved incentives at the enterprise-level geared to profitability, greater price-flexibility, payment by enterprises of a percentage on fixed capital; power to the associations of enterprises to undertake investment out of their own accumulated funds, and more financing of investment *via* credits instead of by direct grants.

The similarities to be found between all these schemes are due partly, of course, to the influence of discussion and experience in one country upon the others. In particular it has been influenced by the growing tendency to re-think critically the accepted precepts and dogmas of the past period. But this influence has by no means been of a one-way kind; and thinking and discussion have been too independent for any mechanical copying of one country by others such as occurred in personality-cult days. The old and dogmatic modes of thinking in defiance of experience, which have obstructed change (and which form the basis of absurd Chinese charges of "bourgeois tendencies") have not entirely disappeared but are rapidly dissolving.

Basically the similarity in solutions is due evidently to the similarity of problems in socialist countries that have achieved a high level of industrialisation and face a new stage of development. What gives these solutions a vital interest as an enrichment of Marxism is that they represent the working out (in the spirit of scientific discussion and bold experimentation) of new, more decentralised models of socialist economy, whereby market relations (and the *Khozraschot* autonomy of enterprises) play a larger role within the framework of planning (which governs the major relations and general structure of development). For the present writer these changes possess a quality of excitement; and he hopes that they will also appear exciting to, at least, his fellow economists.

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[8] As described originally to the present writer, there was to be included the issue to industry of *future* price trends of key products. But I have not seen this explicitly mentioned in subsequent statements.

[9] It is envisaged that these bonuses should amount to between 10 and 20 per cent of wages and salaries.

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Social Economic Formations and Historical Science

(Some remarks on Eric Hobsbawm's Introduction to Karl Marx: Pre-Capitalist Economic Formations)

Ernst Hoffmann[1]

THE Marxist conception of social-economic formations needs further scientific elaboration for various important reasons. The world-wide process of transition from the capitalist to the socialist formation not only affords the irrefutable practical proof of Marxist theory, but also calls for investigating the state monopolist stage of the capitalist formation and the diverse transitional processes in different countries. The transition from world capitalism to world socialism draws into its orbit numerous peoples living partially under conditions of capitalism and partially in pre-capitalist formations or their remnants, including those of primitive communism. Consequently, present historical developments necessitate intensified studies of all pre-capitalist social-economic formations. Last, but not least: the theory of a fundamentally novel type of social-economic formation, the non-antagonistic classless society of socialism and communism, has to be worked out, particularly in connection with the new technical revolution and the emergence of a world system of socialist countries.

At the same time, Marxist historical science is confronted with the task of writing the history of mankind as well as of each nation or people, particularly of the liberated colonial countries. And this scientific work is of pre-eminent political significance. Imperialist ideologists have increased their attacks on the Marxist conception of social-economic formations, especially by means of their counter-conception of the so-called "industrial society" invented with the purpose of perverting the nature of the historical transition from capitalism to socialism. Moreover, many anti-communist historians have specialised in attempts to disprove the scientific validity of the Marxist conception of pre-capitalist formations. On the other hand, a growing number of bourgeois historians are more or less approaching the Marxist view of history and are applying ideas and methods of historical materialism in one respect or another. Here again, the theory of social-economic formations holds a central position.

[1] The author is a Professor at Humboldt University, Berlin.

So Jack Cohen's translation of Marx's *Pre-Capitalist Economic Formations* and Eric Hobsbawm's introduction to it contribute to one of the central political and scientific problems of our time. E. Hobsbawm presents a brief survey of Marxist discussion on pre-capitalist formations and rightly concludes "that the present state of Marxist discussion in this field is unsatisfactory" (p. 65). Apart from the unsystematic handling of the matter and the inadequate theoretical level of much of the discussion in the past, Hobsbawm criticises particularly certain tendencies to simplify theory and history, and to dogmatise certain generalisations based on a now outdated factual knowledge instead of generalising the new results of scientific research. He refutes the idea that each people of the world is destined to pass through each social-economic formation of human history and in the same order of succession as each other people (p. 61). He contests that the particular modes of production in history, their actual number and succession, are contained *a priori* in the general theory of historical materialism (e.g. pp. 19/20). He rejects the picture of historical progress following a straight line and draws attention to the more important "problems of the mixture and coexistence of different 'forms' of social relations of production" (p. 64).

Hobsbawm complains about the neglect of utilising Marx's profound and complex ideas and methods, especially in "Pre-Capitalist Formations", for the analysis of all social-economic formations preceding capitalism. Thus he expounds Marx's fundamental "distinction between modes of production characterised by certain relations, and the 'forms' of such relations which can exist in a variety of periods or socio-economic settings" (p. 59). The introduction closes with the words:

> "A careful study of the 'Formen'—which does not mean the automatic acceptance of all Marx's conclusions—can only help in this task, and is indeed an indispensable part of it" (p. 65).

A New Theory

All this deserves to be fully appreciated and supported. At the same time, Hobsbawm apparently

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puts forward something like a new theory of social-economic formations which he seems to confine to the pre-capitalist formations (cf. p. 36). It may be summarised as follows:

1. There do not exist general, universal, fundamental laws of development for each formation, at least not for slave society and feudalism (pp. 43, 60, 61).
2. In particular, there are no " 'fundamental laws' of each formation, which explain their passing to the next-higher form" (p. 60).
3. Consequently, each formation may pass to several alternative formations. Thus there are alternative primary transitions from primitive communism either to the Asiatic or to the antique or to the feudal modes of production (pp. 32/33, 35, 36-38, 51/52).
4. Likewise, "there should be a succession of modes of production, though not necessarily any particular modes, and perhaps not in any particular predetermined order" (pp. 19/20), i.e. any particular mode of production may possibly be succeeded by any other mode.

These theses involve at least the following self-evident questions: If a particular social-economic formation, say feudalism, is not distinguished by its own particular fundamental laws of development, what then are the factors or features that characterise a particular formation and distinguish it from the others? Or does a particular formation exist in several variants each possessing its own fundamental laws of development, and in this case, what are the common features that still make it possible to maintain the category of that formation? Furthermore, what are the factors that cause primitive communism to be succeeded by the Asiatic formation in one case, by the antique formation in another case, and by feudalism in a third case; or, generally speaking, what are the causes underlying the passage from one formation to another?

Unfortunately, Hobsbawm does not try to give an answer to questions of that kind, nor does he even raise them. As a result, his theses remain purely negative statements and do not constitute a new workable hypothesis to be checked by subsequent scientific research.

We are told that recent attempts have failed "to discover generally acceptable 'fundamental laws' applicable to feudalism and slave-society" (p. 61). It is apparently for this reason that Hobsbawm drops the conception of fundamental laws of development for those two formations. Does the inefficiency of historians hitherto to discover fundamental laws of the feudal and slavery formations provide a sufficient or cogent reason for abandoning the Marxist conception of particular laws of development for pre-capitalist formulations? And is it not an elementary scientific requisite first to enquire into the causes of that failure and above all, to analyse the methods used by the historians in the past?

Let us take the example of feudalism. Hobsbawm himself says that—as a result of certain tendencies amongst Marxist historians—feudalism has grown as a "residual category" and as "a sort of primitive or proto-feudalism" into a "vast category of 'feudalism' which spans the continents and the millennia" and that it "risks becoming much too unwieldy". His own assessment of this outcome is that "so far the Marxist clarification of feudalism has not made adequate progress" (pp. 62/63). By absorbing all sorts of diverse social-economic states belonging to all sorts of historical epochs in different continents, the category of feudalism is transformed into a heterogeneous "feudalism" which cannot possibly be characterised by one single fundamental law of development. Feudal relations of production are based upon the *private* large landed property of individual feudal lords, most of it divided into numerous small allotments in *private* usufruct and possession of individual peasants. In ancient Egypt and India or in Aztec Mexico, relations of production were founded on the *state* landed property of the priestly, military and administrative aristocracy, consisting in the main of the incorporated *common* landed property of numerous peasant communities (i.e. essentially corresponding to Marx's category of the Asiatic mode of production). The results of a procedure by which this and other different types of mode of production are subsumed under the category of feudalism cannot be accepted as evidence against the existence of fundamental laws of the feudal formations.

The Task for Marxists

The task still facing Marxist historians, economists, philosophers and other sociologists is to work out a particular political economy for each particular pre-capitalist social-economic formation, as Marx did for the capitalist formation in *Capital*. In this respect, the present situation has not basically changed from that of 1878, when Engels wrote in *Anti-Dühring*:

> "Such economic science as we have up to the present is almost exclusively limited to the genesis and development of the capitalist mode of production . . ." (p. 168).

And in 1890, Engels wrote in a letter to C. Schmidt (5th August).

> "All history must be studied afresh, the conditions of existence of the different formations of society must be examined individually before the attempt is made to deduce from them the political, civil-law, aesthetic, philosophic, religious, etc., views corresponding to them. Up to now but little has been done here because only a few people have got down to it seriously" (*Marx-Engels Selected Correspondence*, p. 497).

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It is only in this way that the problem of fundamental laws of development for each pre-capitalist formation will be solved. From his negation of such laws Hobsbawm concludes the non-existence of "general mechanisms" (p. 60) of transitions from one social-economic formation to the next-higher formation. The economic basis of these mechanisms has been formulated by Marx, e.g. in the following well-known *general* terms:

> "At a certain stage of their development, the material productive forces of society come in conflict with the existing relations of production. . . within which they have been at work hitherto. From forms of development these relations turn into their fetters. Then begins an epoch of social revolution" (Preface to: *Critique of Political Economy*).

How this general mechanism actually works has been demonstrated by Marx for the transition from feudalism to capitalism. Thus, e.g. in Chapter XIV of *Capital*, vol. I, "Division of Labour and Manufacture", he shows that the production relations of independent artificers and their guilds had turned into fetters of the productive forces—in the first place, of their individual handcraft tools—which had been developed by them to a very high level, and that these fetters were overcome by division of labour within capitalist manufacture. Furthermore, Marx and Engels worked out the theoretical basis for the transitional mechanism from capitalism to socialism which has so successfully been working in historical practice since 1917.

The Productive Forces

Hobsbawm gives Marx's passage quoted above in the first part of his introduction (p. 11). For some reason or other, he does not even mention its contents as soon as he comes to deal with the question of succession of pre-capitalist formations. Consequently, this question has been treated without arguing the fundamental Marxist conception of the productive forces playing a crucial part in the historical process of succession of social-economic formations, save for a few casual remarks (e.g. in a footnote on p. 20). Marx and Engels were, however, quite definite on this central point of their theory. So Marx in *Capital*, vol. 1 (1867):

> "Relics of bygone instruments of labour possess the same importance for the investigation of extinct economical forms of society, as do fossil bones for the determination of extinct species of animals. It is not the articles made, but how they are made, and by what instruments, that enables us to distinguish different economical epochs. Instruments of labour not only supply a standard of the degree of development to which human labour has attained, but they are also indicators of the social conditions under which that labour is carried on."

The history of the productive forces—of their inherent laws of development, of the interplay between them and diverse geographical environments, between technology and organisation of production, between productive forces and relations of production, between the economic basis and the ideological-institutional superstructure, of mutual influences between the productive forces of different peoples, in particular of those with different levels of the productive forces—has been an extraordinarily intricate and complex process. Marx and Engels did not dispose of the necessary factual knowledge for clarifying that process for the pre-capitalist formations. In the 19th century, very little was known about the history of productive forces in more remote times. Pre-historical archaeology was only then born as a science. Systematic large-scale excavations of the ancient civilisations of oriental and mediterranean countries started in the last third of the century. ". . . economic history is still in its swaddling clothes . . .", as Engels wrote in 1890 (in the letter to Schmidt quoted above).

Our present factual knowledge is infinitely greater, though by far not great enough to enable us to solve all problems, but sufficient for a systematic investigation of all the historical laws of development of the productive forces and of their interaction with the relations of production.

Hobsbawm does not say why he ignores the role of the productive forces in the succession of *pre-capitalist* formations. Engels criticised Kautsky for some related reason and emphasised the decisive part—in the last analysis—played by the tools also in pre-capitalist societies:

> "The tools of the savage condition *his* society as much as the newer ones condition capitalist society. Your view amounts to this: that, true enough, production *now* does determine social institutions but did not do so before capitalist production because the tools had not yet committed the original sin" (Letter to K. Kautsky of 26th June, 1884, *Marx-Engels Selected Correspondence*, p. 452).

Owing to his neglect of the productive forces, Hobsbawm advances the thesis that primitive communism had been succeeded in three alternative primary processes by three social-economic formations. It is, however, well-known that the passage of Greek tribal community into slave society—in the course of the first half of the first millennium B.C.—took place on the general basis of productive forces already attained by the oriental class societies, and that on the latest or even higher level of those forces (iron tools, above all, iron implements in agriculture). Likewise, the transition of Germanic primitive communism to feudalism—more than a thousand years later—was achieved on the general basis of productive forces developed by slave society or under its influence, on the latest level of iron tools (elaborate sets of specialised handicraft tools, and in agriculture the heavy plough and a whole

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series of differentiated implements) as well as on the level of an elementary form of machine, the water mill.

In these historical instances it becomes evident that the social-economic formation of primitive communism does not pass into the slave or feudal formation as a result of its own independent interior development, on the basis of its own original level of productive forces, and that these two types of transition depend on the preformation and pre-existence of the respective more advanced social-economic formation dominant in other countries or peoples. Consequently, they do not constitute alternative transitions in the sense of independent, autonomous processes originating primarily within the primitive communist formation itself.

In his "Pre-Capitalist Economic Formations" Marx defines three main types of community—oriental, antique and Germanic—as representing the main forms of relationship between communal and private landed property within the community. According to Hobsbawm's statement, Marx regarded these three types as three alternative primary forms not derived from each other (cf. e.g. p. 38). This is, however, a misinterpretation owing to a misunderstanding of the methodological procedure applied by Marx in this investigation. Marx analyses here the *general logical* forms of evolution of the community, and not the actual historical processes of this evolution, *the logical sequence of forms representing the historical succession of stages*. This could be illustrated by numerous quotations, e.g. from the "Pre-Capitalist Economic Formations" as well as the *Critique of Political Economy* (cf. the quotation in *Capital*, vol. 1, footnote on pp. 77/78; cf. also the footnote on p. 334) and from Marx's draft letters to V. Zasulich 20 years later. Only one passage from the third draft letter may be quoted here:

> "Primitive societies are not all cut to the same pattern. On the contrary, in their totality they form a series of social groupings which differ from each other both in type and in age and mark the *successive stages of development*."

After having misapprehended Marx's line of thought, Hobsbawm goes on to criticise Marx's fundamental conception of *successive* historical stages in the Preface to the *Critique of Political Economy*:

> "In the literal sense this is plainly untrue, for not only did the Asiatic mode of production co-exist with all the rest, but there is no suggestion in the argument of the Formen, or anywhere else, that the ancient mode evolved out of it. We ought therefore to understand Marx not as referring to chronological succession, or even to the evolution of one system out of its predecessor (though this is obviously the case with capitalism and feudalism), but to evolution in a more general sense" (p. 36).

What is plainly true and what is plainly untrue? Applying Marx's categories of social-economic formations, we obtain the following chronological succession in the Eastern hemisphere:

1. Latter half of 4th millennium and beginning of 3rd millennium B.C.: *Asiatic* mode of production appears for the first time in Mesopotamia, Egypt and India (Punjab and Sindh). Incipient forms of this mode on adjacent territories may even be of an earlier date (e.g. Jericho in Palestine or Chatal Huyuk in Asia Minor), as recent excavations seem to indicate.
2. First half of 1st millennium B.C.: *Antique* mode of production arises for the first time in Greece and other Mediterranean countries.
3. Latter half of 1st millennium A.D.: *Feudal* mode of production forms for the first time on the territory of the Western Roman Empire and in adjoining European countries.

The separate development in the New World advanced only to the first stage of class society, the so-called Asiatic mode of production (in Mexico, Central America and north-western South America) until the European conquest. The "Asiastic" mode made its appearance in the Western hemisphere at least 3000 years later than in the Old World. And

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in Oceania the separate formation of the "Asiastic" mode of production set in on Hawaii only at the beginning of the 2nd millennium A.D., a thousand or more years later still.

This tentative arrangement of historical data, interpreted essentially on the basis of Marx's categories of social-economic formations, exhibits in rough outline a definitive chronological order of succession of those formations. Separate developments in three parts of the world present the succession of primitive society—at widely differing dates—*first* by the "Asiatic", and not by the slave or feudal society. And the argument that "not only did the Asiastic mode of production co-exist with all the rest", does not refute—either logically or historically—the pre-existence of this mode to the antique and feudal modes. The primitive communist mode likewise co-existed with "all the rest" (with the Asiatic mode added), though holding an uncontested chronological position.

The above chronological order of successive social-economic formations evidently applies to world history (or to the history of parts of the world developing separately) and is rarely, if at all, wholly identical with the chronology of successive formations in the history of single countries let alone single peoples. Different countries and peoples may pass from one formation to the next-higher one at different dates and with varying rates. Simultaneous passages of several countries have not often occurred. Some of the territories or peoples may continue to stay in the older formation. The whole continent of Australia stopped at the pre-neolithic stage of primitive communism until European colonisation. In the course of history countries or peoples may be—for short intervals or even for centuries—thrown back into a lower formation as a result either of victorious counter-revolution or of subjugation or expulsion by foreign conquerors. Territories with an advanced civilisation may relapse into unpopulated areas as southern Yucatan with its classical Maya culture did a thousand years ago.

On the other hand, many countries and peoples have skipped over social-economic formations on their historical road. They have been able to perform those leaps in connection with relatively more advanced countries and peoples as an indispensable condition. Thus the Teutons overleapt the "Asiatic" and antique formations in connection with the Roman Empire. In the Soviet Union quite a few peoples have even passed from primitive communism straight into modern socialism. Nowadays, liberated colonial countries are struggling for a non-capitalist road leading to socialism. Strangely enough, Hobsbawm rebukes Marx for abandoning "the natural trend of Marx's earlier thought" (p. 50), because he (and Engels) envisaged the possibility of the Russian village community providing the basis of a direct transition to socialism in connection with a victorious socialist revolution in Western Europe (cf. their preface to the Russian edition of the *Communist Manifesto* of 1882). Hobsbawm even identifies (pp. 49/50) this "natural" Marxist view with the anti-Marxist conception of the Narodniks who denied the indispensable condition of a proletarian revolution. At the same time, Hobsbawm praises Engels for his alleged "lucid and brilliant return to the main Marxist tradition" (p. 50) in this matter, though Engels entirely shared and supported Marx's standpoint which was in full agreement with the so-called "main Marxist tradition", e.g. with Marxist historical dialectic. Of course, with the delay of the socialist revolution in the West, Russian history inevitably took a different course, and the Russian village community had to undergo the agonising disintegration through capitalist development under the conditions of the Tsarist regime.

Hobsbawm contests not only a chronological order of successive social-economic formations, but also "the evolution of one system out of its predecessor" (p. 36) with regard to pre-capitalist formations. In fact, these historical processes of evolution—from the system of primitive communism into the "Asiatic" system, from this system into the antique system and from the slave system into feudalism—and the respective laws that determine each of these processes of evolution, have not yet been thoroughly explored and successfully unveiled by Marxist science, though Marx and Engels have given—on the basis of available factual knowledge of their time—some important contributions of great methodological value to the solution of this task, and though historians, archaeologists, ethnographers, etc., have meanwhile done a great deal of successful detail work for partial solutions. Is it justifiable in view of this present situation of partial progress of scientific research to abandon a fundamental scientific conception at a stage when the imperative scientific precondition for the solution of these problems—a comprehensive study of the history of productive forces and their laws of development as well as the elaboration of a political economy for each pre-capitalist formation—has not yet been fulfilled?

One of the methodological requisites is to study *first* the *original* process of evolution of one formation into the next-higher and to differentiate from these primary processes the later secondary processes in other regions operating already in connection with, and more or less on the basis of, the original processes as in the case of primitive communist societies drawn into the orbit of existing centres of the "Asiatic" or of even higher formations. Another

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methodological requirement is to investigate a complex of interconnected countries and peoples, and not to single out one of them. Thus the original evolution from the "Asiatic" to the antique formation cannot be understood by an isolated study of the history of classical Greece, but only by a complex exploration of the whole system of interconnected "Asiatic", primitive, transitional and incipient antique societies of the Oriental and Mediterranean part of the world.

Furthermore, it is methodologically necessary to look for and analyse new types of evolution of one formation to the next-higher, and not to copy mechanically the familiar processes of transition from feudalism to capitalism and from capitalism to socialism. In the first case the new capitalist formation comes into being already within feudal society, and the representative class of the new mode, the bourgeoisie, leads the struggle for the overthrow of the antiquated feudal system and the formation of the new capitalist society. In the latter case the new socialist mode of production does not form within capitalist society, but the antiquated capitalist mode undergoes a self-contradictory partial adaptation to the new level of productive forces in the form of monopoly and state monopoly capitalism. It is the principal exploited class of this mode, the proletariat, that leads the overthrow of the capitalist system and, thereafter, the formation of the new socialist mode of production and society.

In spite of their most fundamental difference of character these two types of transitional process have in common that it is within the respective preceding society that the class leading the transitional process arises. This is likewise true of the passage from primitive communism to the "Asiatic" formation, the tribal aristocracy of chieftains and magicians leading this transition and constituting itself the ruling class of the new "Asiatic" society.

However, this model is obviously not applicable to the transitional processes from the "Asiatic" to the antique and from the antique to the feudal formation. As early as 1847, Marx and Engels wrote in the *Communist Manifesto* about the two alternative results of class-struggle in history, "that each time ended, either in a revolutionary re-constitution of society at large, or in the common ruin of the contending classes".

The second alternative evidently refers to the class struggle in antique society. Ten years later, in his introduction to the *Critique of Political Economy*, Marx formulated the conception of a *synthesis* or *fusion* of the respective modes of production of the Germanic conquerors and the conquered Romans into a new mode of production, an idea elaborated in later years by Engels in his several writings on Germanic and early German history.

The appearance of the colonatus and the peculium in the Roman Empire and their preponderance since the 3rd century A.D. particularly in the Western part clearly represents processes of adaptation to the new level of productive forces requiring individual farming of the direct producer, running the production process himself and being personally interested in the results of this process. The colonatus and the peculium remained, however, within the system of slave relations of production and, consequently, were only a partial adaptation to the new level of production forces. They do not represent the real formation, but a pre-formation of the feudal mode of production. The two main classes of slaveholders and slaves evolved into the new main classes of feudal lords and peasants only partially, fettered in a pre-stage of this evolution. Thus the society of the Western Roman Empire became more fully mature for the transition to feudalism, but was not capable of performing this transition only by its interior class forces alone. Outside the Roman frontiers, but inside the sphere of Roman influence (partly also within the frontiers), Germanic primitive society also began—on the basis of the partially acquired new productive forces, particularly in agriculture—to develop in the direction of feudalism and to produce its own pre-formed elements of feudalism, this development being accelerated as well as retarded by manifold contacts, especially the slave trade, with the Roman Empire and being arrested by the out-of-date system of primitive communism. On the ruins of the Western Roman Empire the diverse elements of pre-formations within either society fused in intricate and protracted processes of the evolution of feudalism.

Again, quite a different type of transitional process is evidently exhibited by the passage from the "Asiatic" to the antique formation, which cannot be dealt with here. As is well-known, there are very different and opposing views on the interpretation of the historical processes taking place in the Western Roman Empire, in Germanic society and in the states established on the territory of the Empire after its downfall and on adjacent territories. The foregoing sketchy interpretation, which can only be a suggestion for further detailed discussion, is meant to exemplify the methodological application of the Marxist conception of successive formations—of "the evolution of one system out of its predecessor" —to this particular case and to demonstrate that there is not the least scientific exigency to throw overboard a well tried scientific conception, but an urgent need to apply and elaborate it.

In his various theses on pre-capitalist social-economic formations Hobsbawm contests that there are fundamental laws for each formation and for the transition from one formation to the next-higher one.

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He denies the evolution of one system out of the preceding system and disputes any order of succession of formations. Instead, he speaks of "evolution in a more general sense" (p. 36), of "analytical . . . stages in this evolution" (p. 37), of the "vast category of 'feudalism' " having "analytical value" (p. 63), but refrains from producing any concrete meaning to those abstract terms.

Thus we are actually left without objective laws of development representing the categorical subject-matter of all science in its proper sense, and without a progressing succession of stages representing the indispensable constituent elements of all ascending developments. This negative result cannot be qualified for promoting historical science.

In a brief notice on the publication of Marx's "Pre-Capitalist Economic Formations" in the *Daily Worker* (10th December, 1964) Marx's theory was judged as follows:

> "In particular he (i.e. Marx) believed that the passage of societies from one stage of the relations of production to another, though determined by objective laws, need not, and in fact did not, follow a single line".

What are the readers expected to understand by the term "single line"? It can be interpreted in two opposite ways. First, the term may be directed against dogmatic and mechanical simplifications of the extraordinarily complex historical course of ascending humanity. Secondly, it may be directed against the fundamentally uniform development of mankind and the fundamentally uniform main stages of this development from primitive communism to modern communism. Terms like "single line" or "unilinear" are evidently far too abstract, empty or ambiguous for a scientific analysis of historical process and progress. Hobsbawm's introduction actually contains both those interpretations, often intricately intermingled. It contributes to the dismantling of dogmatic misconstruction of the Marxist theory of social-economic formation and, at the same time, it results in an extensive dismantling of this theory itself.

In the past, discussions have mostly centred on important partial problems of the theory of social-economic formation as the question of the "Asiatic" mode of production or the transition from feudalism to capitalism. In his introduction Hobsbawm comprises all those diverse discussions and deals with their common theoretical and methodological problems, by that raising the discussion on to a higher level. This is urgently needed in view of the immense historical factual knowledge accumulated since the time of Marx and Engels and of the successful progress of historical research. This article (the interpretations and conceptions expressed here are, of course, exclusively my own personal views) is intended to contribute to a discussion promoting the application and elaboration of the Marxist theory of social-economic formation on the basis of the tremendous advance of historical, archaeological, ethnographical, etc., research and of the novel revolutionary processes of the present time.

Galileo and Scientific Method

Sam Lilley

We print below the substance of a speech made at the celebration last year of Galileo's 400th Anniversary.

At the same meeting another paper was read by Jack Lindsay which we hope to print in a later issue.

A SPEECH celebrating the fourth centenary of the birth of a genius is something that presents a peculiar difficulty to a Marxist. The problem does not arise for those who regard a genius as simply a man of unusual intelligence, drive and energy, who happened to be born at a certain time, but whose greatness and power of innovation is something apart from and independent of the environment in which he lived. Those who hold that view of history need only describe what the great man did, and outline the debt that the world owes to him; and their job is done. But to a Marxist historical change is a complex process carried out by movements involving whole classes of people. And a genius is one in whom high intelligence and energy are combined with a sensitive appreciation of the trends that are inherent in the broad movements of his era, so that he succeeds in bringing to full light of day the ideas towards which his fellow men are blindly groping. Hence—not in order to belittle him, but rather in order to show where his genius truly lies—a Marxist is compelled to discuss, not just the achievement of the man, but also the past tradition and the novelties of present environment out of which that achievement arose. The background tends to loom larger than the man. I

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hope I shall not be thought to be doing Galileo an injustice by devoting half my time to describing his background and his relation to it.

I cannot, in so brief a time, discuss the whole of Galileo's achievement. I propose to concentrate on what, in retrospect, turns out to be the most important part of his work, namely the key role that he played in establishing the *method* of modern science —which has had far greater effects than, for example, his Copernican campaigning, despite its drama of heroisms, blunderings and recantations.

Theory and Practice

It is not, after all, very important whether the men of the seventeenth century held correct views about the relations of the Earth, Sun and planets, or about any other particular theme. What matters much more is that these men established the basic methods by which science has been able during the last three hundred years to undertake the task of systematically discovering the truth about nature and applying that knowledge to human betterment. And the central role in establishing the key method of modern science was played by Galileo.

Scientific method is, of course, nothing more than a judicious procedure for interweaving theory and practice. It is not, however, any old way of throwing theory and practice together, but rather a very specific way of combining them. An adequate description of it would necessarily be very complex, but its central theme might be summarised like this:

Scientific method is not primarily a matter of *deriving* theory *from* practice, but rather of *testing* theory *by* practice. The scientist starts with a hypothesis—a provisional theory. It does not much matter whether he got his hypothesis by analysing practice (though usually he will take notice of existing empirical evidence), or whether he dreamed it up by simply lying in bed and thinking about how the world *might* work. The important thing is that once he has got his hypothesis, he must *test* it in practice. He must deduce practical consequences from the hypothesis and submit these to experimental test. And he must accept or reject the hypothesis according as the experimental results do or do not agree with the deductions. The key point, then, is that the theory may or may not originate *from* practice, but it *must* be tested *by* practice. All this may sound very simple and obvious in the saying, but history shows that it has in fact been a very difficult concept to grasp.

Now in most civilisations theory and practice have been the concern of different social classes, with a great gulf fixed between them. Practice was the affair of lowly craftsmen—so lowly that before modern times we hardly ever know the name of an inventor. Theory was the concern of priests or of head-in-the-air philosophers like Plato and Aristotle. Theory and practice could not meet. Science, in our sense of the word, could not exist.

We should expect scientific method to arise when and where social changes broke through these class divisions and put the theorist and the practitioner in touch with each other. And the core of my argument is that the changes of the fifteenth, sixteenth and early seventeenth centuries—the break-up of feudalism and the early stages of capitalistic development—were responsible for a partial breaking down of these class barriers, which made possible an interfertilisation of theory and practice, and so led to the rise of science as we know it. And I want to portray Galileo as the man who most completely responded to this tendency to blend the two together, and who, as a result, was first able to grasp fully the essentials of scientific method.

In the Medieval World

The medieval world had a very strong tradition of discussing the methodology of establishing truth about nature. This discussion started from the position of Aristotle, but was very far from a slavish copying of his opinions. At the height of feudal prosperity, in the later thirteenth and early fourteenth centuries, there was also some bridging of the gap between scholar and craftsman. And as a result, the very best workers of this period came near to understanding, and even to a small extent using, the methods of modern science. But this development came too late. In the decline of feudal society, scholars retreated towards a more traditionalist point of view; the best medieval developments were not transmitted in living form to the modern world.

Nevertheless something *was* transmitted. Despite the general decline, medieval scholarship here and there in very special circumstances did continue to live and develop. One place where it lived on quite vigorously was at the University of Padua, where there was a strong tradition of discussion of methodological problems from the fourteenth century to the later sixteenth. This school had its severe limitations. First, it did not start from the best medieval work, but rather went back for its starting point almost to Aristotle, and even at the end it had not yet recaptured all that the best fourteenth century workers had achieved. And second, it had too little connection with practice; it was confined to highly theoretical discussion about how one *should* discover or establish truth. And because of that last limitation, the Paduans—despite claims that have been made for them[1] did not actually reach the modern scientific method.

But they did a great deal of the theoretical analysis that was a necessary pre-requisite for establishing

[1] J. H. Randall, Jr., *J. Hist. Ideas* 1 (1940), 177-206.

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the method. They clarified the relations between the two ways of arguing: from general to particular, and from particular to general. They reached a clear statement—even if it remained a theoretical statement that did not much affect their practice—that sense knowledge is more certain than any generalisation based on it, thus abandoning the Aristotelian position that after examining a few particular instances the mind leaps to an intuitive generalisation which is an absolute truth. So to the Paduans a generalisation began to have some of the attributes of what we should call a hypothesis. They came to realise that deductions from this hypothesis can be no more certain than the hypothesis itself. But they did not take the vital step of saying that the deductions must be tested against empirical fact, and the hypothesis must stand or fall by the result. And in any case, all their methodologising came to very little, for the simple reason that in practice they argued a great deal, but experimented hardly at all. To turn their methodological theorising into scientific method, the Paduans would have had to experiment actively. But experimenting was a manual activity, associated with plumbers and carpenters—something to which they did not take easily.

Experimentalism

For the growth of experimentalism, we have to look in another direction. And here we come to something that is really new in the Renaissance—the rise of a quite new type of professional technologist of very high social standing. These appeared first in Florence—that city where even by 1338 one-third of the people were employed in the woollen industry, and one-third of these again (ten per cent of the total) were working in more or less capitalistic factory conditions. Here in Florence the status of the technologist rose very sharply. At first the typical technological leader was a combination of artist and engineer. Giotto in the early fourteenth century was not merely the founder of modern painting, but also city engineer and architect, *and*—this shows how even so early the new type of technologist was tied up with the beginnings of capitalism—city engineer and architect *and* money lender and proprietor of a business for hiring out looms to weavers who could not afford their own. Giotto is early in this trend, and rather exceptional. Brunelleschi (1377–1444) is more typical—architect and sculptor and painter, and the engineer who put the dome on Florence Cathedral (which everybody else said was impossible) and did much work on fortification and on controlling the unruly river Arno. And then there was Leonardo da Vinci, who painted about a dozen pictures and left five thousand pages of manuscript on his work in science and in every field of engineering.

All these and many more were trained as practical men. They went through the apprenticeship of the artist's workshop—where they learned a great many practical things besides mixing colours. Then the needs of the changing society, with its growing technological demands and opportunities, gave them the chance to rise out of the ranks of the ordinary guild craftsmen, to become the back-room boys and intimate associates of princes. In these new social conditions they had friends among the scholars, and access to libraries. They moved on from technology to science as such—sometimes just to the science that would be useful to their technology, but often, and outstandingly with Leonardo, to science that had no connection with their practical lives. From books and from educated friends they learned much of scholarly science. And then they tried to find out more. And when they tried to find out more, they did not behave like scholars; they did not retire to the study to think. They behaved as their apprenticeship had taught them to behave; they made something and tried it out—in other words, they experimented.

In the sixteenth century, as the movement spreads from Italy over north-west Europe, the great all-rounders like Brunelleschi and Leonardo disappear. Now we have more specialist craftsmen, like the surgeon, Ambroise Paré, or the compass-maker Robert Norman. But these also rise out of the rut of their crafts, acquire book learning, seek to extend knowledge, and do so, not merely by thinking, but by experimenting.

These superior craftsmen, then, were taking the first big step towards combining the theory of the scholars with their own practice. Nevertheless, they did not in fact attain the modern scientific method. I think it was impossible for somebody who was basically an artisan, no matter how high he might climb afterwards, to combine his own practice with the scholar's theory *in the right way* to make scientific method. Some years ago I attempted to analyse Leonardo's work in these terms.[2] You cannot criticise Leonardo's knowledge of existing scholarly science—he knew it better than most scholars. And you certainly cannot criticise him for lack of experiment—he carried out hundreds or thousands of brilliant experiments, experiments of the most beautiful design technically, and executed with great thoroughness. And yet from all this he really got very little—a few brilliant shafts of light thrown on this or that detail of nature, but none of that general illumination of broad fields that really constitutes science.

And when we look for the reason, we discover that his methodology was wrong. He knew how to experiment. But he did not know how to relate his

[2] *Atti de Convegno di Studi Vinciani* (Firenze, Olschki, 1953), pp. 401-18 (in English).

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experiments to theory. On that point he had quite wrong ideas—ideas that in principle were little more advanced than those of Aristotle. He thought that you must *derive* theories *from* practice—you must do experiments and base a theory on them, and that will be enough. But he did not grasp the vital point that you must *test* your theory *by* practice—deduce further practical results from your theory, and check experimentally to see if things work out as you predict.

Experiment and Theory

Yet the clue as to how to set up the first relationship between experiment and theory already existed—in the work of those Paduan scholars I talked of earlier. If Leonardo could have combined his active experimentation with the methodological views of his Paduan contemporary, Agostino Nifo, the result would have been very close to the scientific method that we use today. But it seems that, though an apprentice-trained craftsman might drink deep draughts of scholarship, one thing he could not do was to understand what the scholars were getting at in their apparently arid arguments about methodology. It seems as if the point of the methodological discussion would only be understood by one who was trained in the tortuous ways of scholarly thought from early youth. And in the fifteenth century and most of the sixteenth such a one would disdain manual work and would therefore not experiment.

And so the actual emergence of the scientific method could not occur until a new social situation arose in which, instead of craftsmen moving into scholarship, we find scholars moving into craftsmanship—scholars who start with the methodological theories at their command and then add to them the practical activities of the artisan.

This new movement was brought about by a further increase in the importance of technology in industry, navigation and war, and by a further development of quasi-capitalistic relations of production. Towards the end of the sixteenth century, the scholarly philosopher was discovering that his patron was not content to hear him discourse on Aristotle's opinions about the nature of the planets. This patron also expected him to give advice about dredging rivers or planning fortifications or what have you. The scholar was forced to become practical at least on a part-time basis. And in doing so he was forced to come into contact with practical craftsmen. Maybe he liked this, maybe not. But if his mind was sufficiently receptive, he soon discovered that he had much to learn from the artisan. At first—from the mid-sixteenth century on—the scholars learned chiefly *facts* from their humbler brethren, while the framework of their own thinking was little changed. But towards the end of the century a select few of them began to learn something that was to alter the whole nature of their scholarship—began to learn the value of the practical man's habit of resorting to experiment.

First of this select few was William Gilbert. His treatise *On the Loadstone* of 1600 was the first book ever, written by a scholar for scholars to read, which was thoroughly experimental in content. And the frequent, well-informed references to craft practices which it contains, as well as the extensive borrowings of experiments from the work of the compass-maker, Robert Norman (who was one of the latest and best examples of craftsman-turned-scientist), show that Gilbert had indeed learned the value of experiment from the later members of the craftsman-scientist tradition.[3] But thoroughly and brilliantly experimental though it was, Gilbert's work was *not* modern in methodology. He had no good notion of how experiment should be related to theory. The fact is that Cambridge, where he was educated, was not one of those universities where the medieval interest in methodology had continued to live and grow. Gilbert could learn experimentalism from his contacts with the crafts, but he had no source from which he could learn the subtleties of methodology. And so the creation of our modern scientific method was not for him.

William Harvey, on the other hand, had studied medicine at Padua, and must have discussed methodology there. And in his profession the distinction between scholar and craftsman—between physician and surgeon—had been melting away since the time of Vesalius (1543). He was therefore well placed to effect a synthesis between Paduan methodology and craft empiricism. And indeed his work on the circulation of the blood does contain some examples of modern scientific method—hypothesis testing—correctly practised. But biology at the current level of development was not a soil in which such seeds could grow and flower and reproduce—too few suitable problems were available. And so it was left to Galileo to demonstrate the value of the modern method in a field where it could be developed further—namely in dynamics.

Galileo Scholar and Technologist

Galileo was exceptionally well placed for bringing together the separate achievements of the experimenting craftsmen and the methodologising scholars. His own status as a master of scholarly learning needs no emphasising. And he spent his most fruitful years (1592–1610) at the University of Padua at a time when the echoes of the last really big controversy about methodology were just dying away. He

[3] E. Zilsel, *J. Hist. Ideas* 2 (1941), 1-32, reprinted in *Roots of Scientific Thought*, ed. Wiener and Noland (New York, Basic Books, 1957).

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was too sensitive a receiver not to pick up the vibrations. And indeed in some of his writings on methodological questions he uses the technical language of the Paduan school, thus making clear his debt to that source.

But, ever responsive to the trends of his time, Galileo was no ivory-tower scientist. He was constantly engaged in practical activities that put him in touch with the crafts. When he made his first big discovery—the isochronism of the pendulum—in 1583, he immediately applied it to make an instrument for timing the pulse. Several of his designs have survived, and some are ingenious enough to suggest that even then he was in touch with instrument makers. Three years later, we find him turning Archimedes' famous device for detecting the adulteration of gold into a more refined and practical instrument. During his years as Professor at Pisa, he was constantly consulted by the Florentine authorities on technological questions—the design of a dredger, for example.

When he moved to Padua, he lectured at the University on mathematics and astronomy, and taught privately on mechanics and engineering. He now wrote a number of treatises of which several had a technological bias—On Military Architecture, On Fortifications, and so on. And again he was in demand as a consulting engineer to the state of Venice. Here in Padua he invented what he called his "Geometrical and Military Compass"—a sort of sliding-scale instrument for doing practical calculations, especially those needed by military engineers and gunners. This instrument formed the subject of his first publication. More important in the present connection, he now opened his own workshop, employing wage-labour to manufacture the Geometrical and Military Compass in thousands,[4] and other instruments as well. Casual references in his works give us a picture of him working in the shop himself.

When he wishes to return to Florence in 1610, his "letter of application" for a post that might be designated as chief back-room boy to the Grand Duke of Tuscany certainly describes the treatises he proposes to publish on mathematics, astronomy, dynamics and other scientific subjects. He then adds with nearly equal emphasis that he has "also in mind the writing of some books about military matters, setting these forth not merely theoretically but showing by very elegant rules everything in that science which depends upon mathematics, such as the practice of fortification, ordnance, assaults, sieges, estimation of distances, artillery matters, the uses of various instruments, and so on."[5]

[4] "Thousands" is his own statement, in the letter (to B. Vinta) mentioned in the next paragraph—quoted in *Discoveries and Opinions of Galileo* by Stillman Drake (New York, Doubleday, 1957), p. 64.

[5] Op. cit., p. 63.

I do not mean, of course, to imply by all this that Galileo was in spirit mainly a technologist who found it convenient to study and use science. Quite the reverse. His major works show him as a man driven by intense curiosity about the laws of nature. Understanding rather than application was his primary aim. But he never treated these matters in isolation from the practical problems of the world he lived in. His greatest book, the *Dialogues concerning Two New Sciences*[6] of 1638, is primarily a work on fundamental science. Yet its contents make it clear that he took every possible opportunity to relate his science to technological practice. Indeed the subject matter of half the book—the relation between the strength of a beam and its dimensions—is introduced as arising from a problem of shipbuilding. He goes on to develop the theme in many directions that could have little or no relevance to practice. But whenever he gets the chance, he points out possible applications. The culmination of this work is his demonstration that a cantilever beam, to give maximum strength with minimum material, should have its vertical longitudinal cross-section in the form of a parabola. And now he adds:

> "It is thus seen how one can diminish the weight of a beam by as much as thirty-three per cent without diminishing its strength; a fact of no small utility in the construction of large vessels, and especially in supporting the decks, since in such structures lightness is of prime importance."[7]

and he cannot resist the temptation to re-emphasise this point several times.

The second half of the book is concerned with the motion of bodies in free fall and with the trajectory of a projectile. While there are relations between this part of science and the problems of gunnery, it would be quite wrong to think that the improvement of artillery was the major motive that led Galileo to the subject. On the contrary his main aim was an understanding of the nature of motion under gravity. But again there are very frequent references to practical application. He calculates range-tables, and discusses in what way gunners must allow for factors like air-resistance which his theory neglects.

Learning from the Artisans

Now Galileo's essays in technology are not to be compared in importance with his basic contributions to science, and he knew that just as well as we do. I have emphasised them here, not because they are important in themselves, but because they gave to Galileo's work in fundamental science that essential something new, which enabled him to make the transition from the arid philosophising of the past

[6] Trans. Crew and Salvio, reprint by Dover, New York, n.d. The remaining references are to pages in this edition.

[7] p. 144.

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to the effective science that has been transforming the world ever since. Unimportant though they may have been in themselves, it was these interests in practical problems that enabled Galileo to combine all that was best in the craftsman's practice with all that was best in the scholar's theory and so to create the first really modern science.

He was very conscious of how much he could learn from artisans—so much so that he makes this the opening theme of his greatest book:

> "The constant activity which you Venetians display in your famous arsenal suggests to the studious mind a large field for investigation, especially that part of the work which involves mechanics; for in this department all types of instruments and machines are constantly being constructed by many artisans, among whom there must be some who, partly by inherited experience and partly by their own observations, have become highly expert and clever in explanation. '. . . Indeed, I myself, being curious by nature, frequently visit this place for the mere pleasure of observing the work of those who, on account of their superiority over other artisans, we call 'first rank men'. Conference with them has often helped me in the investigation of certain effects including not only those which are striking, but also those which are recondite and almost incredible."[8]

He then goes on to report a statement from one of the workmen, which he could not at first believe, but which, on investigation, proved to be correct and was the foundation on which he developed the new science whose exposition constitutes the first half of the book. In a word, his introductory remarks fully acknowledge that one of his most fruitful researches arose from ideas he got from artisans.

Later on he tells how a workman, called to repair an allegedly faulty pump, informed him that a suction pump cannot raise water more than a certain definite height.[9] This fact must have been known to miners and water-supply engineers for a century or so. Yet Galileo was the first learned man to take notice of it. His attempt to find an explanation for the fact was on wrong lines, but it began a series of researches which, in the hands of his pupils and successors, opened up the whole science of vacuums and atmospheric pressure—one of the three or four most successful lines of seventeenth century research. We can see how apt was one of Galileo's favourite sayings: that he had never met a man so ignorant that something might not be learned from him.

I hope I made it clear in what I said earlier that learning from practical men was not something unique in Galileo. Social change was forcing natural philosophers as a group into closer contact with technology, giving them the opportunity to learn what the artisans knew. Galileo's genius—or, at any rate, that very large part of it with which I am concerned—lay in the fact that he was more conscious in his appreciation of what practical men could teach him, less inhibited than others by traditions of scholarly superiority, more willing—nay, eager—to pick up any new piece of knowledge that a craftsman could give him, and then to work on it with all his resources of mathematics and scholarly learning, until the artisan's hard facts had been transformed into a new generalisation about the nature of things. Galileo's genius lay in his ability—far beyond that of any contemporary—to combine the best of craft practice with the best of scholarly philosophy, and so to produce true science.

Modern Scientific Method

But combining the best of both worlds meant much more than merely picking up particular facts from technology, and analysing and generalising their implications till he had produced new sciences like those I have mentioned. It meant ultimately the creation of the modern scientific method. For the best of craft practice, as we have seen, included the habit of searching for truth through experiment; and the best of scholarly philosophy included the methodological analysis of the Paduan school. Galileo learned the one from his craftsmen friends and his experiences as consultant and teacher in engineering, and the other from his sojourn in the University of Padua. Combining these two, and adding to them his own supreme ability for generalising and abstracting, he emerged with a virtually complete understanding of the method of modern science.

The *Dialogues* of 1638 contains the first fully worked out example of modern scientific method in practice.[10] Galileo wishes to know the mathematical law governing the rate at which a body falls. He propounds the hypothesis that it falls with constant acceleration. This hypothesis could not be tested directly—the falling body moves too fast. So he uses mathematical analysis (together with an auxiliary hypothesis, which is itself tested by experiment) to deduce that *if* this hypothesis of constant acceleration is true, then a body rolling down an inclined plane will cover a distance proportional to the square of the time of travel. This is something that he *can* test in practice, since the slope can be made as gentle and the speed as slow as he likes. He performs the experiment, discovers that the results do agree with his predictions, and so concludes that the hypothesis is confirmed.

This is the only fully worked out example of the method which Galileo actually describes, but there are hints throughout the book from which we can

[8] p. 1.

[9] p. 16.

[10] pp. 160-179.

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deduce that he used it in several other contexts. And, while the book contains no formal discussion of methodology, his passing comments make it clear that he was fully aware of what he was doing. This is no case of hitting accidentally on a correct procedure in one or two cases. On the contrary, Galileo has fully grasped and systematised the method of testing hypotheses and has chosen deliberately to apply it in appropriate places. He is even clear on a point which many scientists to this day have not got straight: that the essence of experimental method does not lie in a multiplicity of experiments, but in finding the correct relation between a few experiments and the theory. This book consists mostly of theory—largely of mathematics—a fact that has misled many modern commentators into supposing that Galileo was essentially a Platonist believing in the ultimate truth of things found mathematically, and only reluctantly using experiment. But Galileo knew better. He introduces this work on falling bodies and projectiles by saying:

> "I have discovered *by experiment* some properties of it which are worth knowing and which have not hitherto been either observed or demonstrated."[11]

In a word, Galileo was aware that, although the bulk of his book was theory, nevertheless this was essentially a work of *experimental* science, because he had used a few well-chosen experiments at the appropriate places to verify his theories. He knew that the ultimate test lay not in his brilliant theorising, but in the experimental verifications.

And, I am suggesting, Galileo was able to achieve all this, because his particular environment and his outstanding ability to learn from others and generalise what he thus learned, enabled him to combine the methodological theorising of Padua with the experimenting habits of practical men. The very form in which he wrote this book confirms the point—the logical and mathematical demonstrations are in the scholar's language of Latin (supposedly quotations from a fictitious book); the practical applications and descriptions of experiments are in the vernacular of the craftsman—as if Galileo wishes to tell us by his choice of language that he knows his work to be a synthesis of the two. He did not publish this book till 1638, but the foundations of it were laid in Padua, when he had closest contacts with the scholarly tradition of methodology and simultaneously with the skilled men of his own instrument-making factory. It must have been in these conditions that he came to a full appreciation of the value of both and started to combine and generalise them into the key method of modern science.

Galileo's Genius

Now I am very conscious that I have only talked about one side of Galileo's genius. In particular I have omitted his other great methodological contribution—his discovery of the modes of abstraction by which empirical data can be fruitfully married to mathematical argument. This is intellectually a greater achievement than the one I have described, but—unless one accepts the gross simplifications that are fashionable among historians of science today—a discussion of it would be far too complex for this occasion. Let me only hint that I think it can again best be understood in terms of Galileo's ability to synthesise and generalise what he could learn from others—only this time the number of trends that had to be synthesised was much larger, and his personal achievement in putting together the essence of all of them was correspondingly greater.

And so, if I may conclude by coming back to where I started, I think Galileo's genius is not to be viewed primarily in terms of his high intellectual abilities—his powers of abstraction and generalisation, his mathematical skills, and the like. Great though these intellectual abilities were, nevertheless I think a full appreciation of Galileo's genius can only be found in terms of his sensitivity to the trends of his time—his ability to take the best from everything that was going on around him, and by putting all these bests together to create something that was entirely new: to take the qualitative step from groping in the fringes of the medieval mist to walking in the full light of science.

[11] p. 153. My italics—S.L.

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Discussion contributions on:

Labour, What Next?

Tom Durkin

TIM WEBB'S comments on William Wainwright's earlier article raise some pertinent questions of relations, approach and perspective between the Communist Party and the progressive forces of the Labour movement. Comrade Webb also draws some contradictory and erroneous conclusions.

The influencing and winning of the progressive forces in the Labour movement for an alternative policy and close association with the Communist Party is essential for the defeat of right wing policies and leadership, the prerequisite for advance to socialism.

Everything that can be done by Communist Party organisations and individual members at all levels to further this aim is essential. The growth of the Communist Party and the extension of its independent political activity does not conflict with, but increases, the opportunities for united activity and for the transformation of the Labour movement to win it from reformism to Marxism and the socialist revolution.

Referring to the election of left of centre candidates to the Labour Party National Executive by constituency Labour Parties, Comrade Webb says that it is "ironic" that Labour/Communist contacts should be much greater in trade union branches than in the constituencies.

To any Communist this contact is quite natural and not in the least ironic. Communist and Labour trade unionists are in constant association in the workplaces, Shop Stewards Committees, trade union branches, District Committees, regional and national bodies and at conferences.

They are members of the same trade union organisation forced to grapple with a great range of problems, industrial, economic, political and social. Though the trade unions play a vital political role they are not political parties. They embrace people of all political outlooks and are constantly subjected to an ideological barrage aimed at winning them for policies of class collaboration.

Communist and Labour Party branches and other organisations do not have the same close contact and exist as separate bodies. Though many Communist and Labour members do have contact in the localities and often the organisations of both parties act for common aims, "dialogue" and organisational contact between them is still a rarity.

Individual contacts and association are very important. Far more could and should be done to promote discussion, association and common action between Communist and Labour organisations especially at ward and constituency level.

To bemoan or belittle the role of the trade unions or to pose association between Communist and Labour members in the trade unions as against the constituencies and localities is not helpful.

The trade unions are the mass basis of the Labour Party, connected with it at all levels, providing the bulk of its finances, sponsoring a large number of M.P.s and Councillors, and are capable of being the decisive influence in formulating policy and electing the leadership at National conferences.

The building of Communist Party branches, membership, political influence and *Daily Worker* sales in the workplaces is a most essential need in order to be able to radiate a progressive political influence throughout the trade unions and the Labour Party. Bans and proscriptions on Communists as Shop Stewards or in other trade union capacities are an expression of the fears of the right wing of Communist influence in the workplaces and trade unions and the implications for social change of such a progressive influence.

Tim Webb admits the need for a strong and influential Communist Party as a prerequisite for agreement between the two parties at any level. But he apparently regards Communist electoral activity "in some areas" as a particularly difficult problem which can "injure the prospects of unity".

It would be interesting if he indicated the areas he has in mind and whether they include elections to the Greater London Council and the London boroughs.

He castigates hasty decisions to contest "merely for the sake of getting a Communist on the ballot paper". Though hasty decisions are at times taken it is a distortion to say that it is for the sole purpose of getting a Communist on the ballot paper. Surely the aim is to give the electors the opportunity to consider an alternative policy and to vote for a spokesman of that policy to be their representative on the Council.

Tim Webb refers to the need to make efforts well in advance of elections to "come to some form of agreement" in order to nullify vote splitting allegations by the right wing. But here again he is

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not clear on what he means by "some form of agreement". This could mean the withdrawal of the Communist candidate and though this possibility cannot be excluded in certain circumstances Communists should require specific and not just "some form of agreement". Which policy and which candidate can best serve the people's needs must be a major consideration in any discussion and not, as often happens, "unity" through the withdrawal of the Communist candidate in order to keep the Tory out.

"Splitting the Vote"

Furthermore, it is not Communist electoral intervention that splits the working-class vote. The loss of 800 seats by Labour in the recent local elections was not due to Communist intervention. Neither were the three successive General Election defeats of Labour by the Tories.

The fact that millions out of our 24 million working population vote Tory, Liberal or just abstain is due primarily to the policies and role of the right-wing Labour leadership. It is they who cause the real split in the working-class vote and foster the view so often expressed to canvassers "they're all the same when they get in". Any restriction of Communist electoral activity on the spurious grounds of nullifying the right-wing vote splitting argument would commit us to be permanently at the mercy of the real splitters—the right wing.

Tim Webb further develops his retreatist line by saying "our position will be greatly strengthened if we are seen to be a force in local politics, not merely in terms of votes, but in influence in the local bodies that generally support the Labour Party at election times".

All political parties aspire to political power in order to further their policies and aims. They measure their strength and influence in terms of electoral support primarily. But this "critical appraisal" advises Communists not to see their strength merely in terms of votes but in influencing local bodies that generally support Labour. That can only mean electoral abdication and becoming an adjunct of the Labour Party electorally.

Such an approach would not increase the size and electoral influence of the Communist Party and would not realise the eventual election of a Socialist/Labour and Communist majority as envisaged in the *British Road to Socialism* which Tim Webb purports to support.

Our electoral intervention is an essential part of the class, political and ideological struggle. Our intervention poses the issues of which policy and which party best serves their interests before the people. Electoral work compels our branches and candidates to become more knowledgeable on local issues, on the role and powers of Councils and on the formulation of policies to meet local needs.

We get to know supporters, win readers for our publications, make new members, stimulate the political battle and lay the basis for future victories. In addition we help the left in the Labour Party and our intervention often assists in bringing changes in Labour's policies.

A successful Labour candidate in a Willesden election said to his Communist opponent at the count "you had the best policy, I wish ours were as good; you deserved a better result". Neither is it the case that progressive Labour candidates resent Communist intervention in elections, for they often agree that they have more in common with Communists than with their leaders and accept our right to contest and advocate our practical policies and socialist aims.

The Greater London Elections

The mass intervention by the Communist Party in the 1964 Greater London Council elections gave the whole population—in the factories and localities—the opportunity to vote Communist for the first time.

This not only won 93,000 Communist votes but also had an important influence in factory and trade union discussions and in organisations of the Labour Party. Acceptance of Tim Webb's views would have restricted the London Communists' electoral campaign in the past, would do so in the future, would divide our forces between those working for Communist and Labour candidates and could provide a political alibi for all who wish to restrict Communist electoral activity.

The disillusionment of many Labour supporters with right-wing policies at Government and Council level, the approach of a General Election and the 1967 London elections will no doubt stimulate renewed activity by the advocates of Communist electoral retrenchment in order to "support Labour and keep the Tories out".

The resolution adopted by the Communist Party's London District Congress last November set the only course that can keep the Tories out by developing a mass movement to change Labour's policy, thereby making it serve the people's needs, and in the process strengthening the Communist Party and progressive forces so that Labour majorities can be maintained and reinforced. Views similar to those advocated by Tim Webb were decisively rejected.

Far more needs to be done to deepen understanding of the electoral role and perspective of the Communist Party and the relationship between electoral work and the advance to working-class political power in Britain.

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Our electoral activity and organisation also needs to be vastly improved. Too often our candidates are late in the field and our campaigns are of a few weeks' duration. A central focus of the work of all our local and factory branches should be towards the winning of electoral support, and the position of our candidates and Councillors should be elevated so that becoming a Communist candidate is a matter of pride and a role to be aspired to in the struggle for socialism.

All in all, the growth and strengthening of the Communist Party in the workplaces, in the trade unions and electorally is the decisive requirement for the advance of the British Labour Movement to end the decaying capitalist system.

Tim Webb's comment on William Wainwright's article offers nothing that is substantially new. Not only does it make an unbalanced appraisal of Nye Bevan, but it seeks to modernise and refurbish old ideas about Labour movement unity based on restriction of Communist independent political activity and the accommodation of the Communist Party activity to the fortunes of the Labour Party under right-wing influence. It spells retreat, not advance.

Joshua S. Horn

IF Nigel Kelsey wishes to drag China into his discussion of the relations between the Communist Party and the Labour Party (*Marxism Today*, April 1965) that's his affair. But he should try to be accurate. As it is, his remarks simply illustrate how, in the current situation, ill-informed criticism of China serves as a smokescreen for spreading notions that have nothing in common with Marxism.

Kelsey has the hardihood to step in and attack China in a sphere which even her most inveterate bourgeois enemies usually prefer to avoid, namely the sphere of the closeness of relations between "the Communist Party on the one hand and the working class and their organisations on the other". He is right, of course, in regarding this as an important question, but it would not have taken a great deal of research on his part to discover the remarkable closeness of the Chinese Communist Party to the masses both before and since the country's liberation.

The last few years have provided a particularly vivid illustration. Without the Party's closeness to the working class and their organisations, and to the masses generally, how could China have withstood the attacks of natural disasters plus external political pressure of the most vicious kind? How could industry and agriculture move forward at so rapid and healthy a pace? How could the Party have the confidence to publish in the press all sides of the controversy in the movement? How could the government stand up to the aggression of U.S. imperialism with such firmness and courage? Mao Tse-tung's principle of "from the masses and to the masses" is no empty slogan but one that guides day-to-day practice.

Kelsey's remarks about the Chinese National People's Congress are particularly ill-informed. Nation-wide elections held last year resulted in the election of 3,040 deputies to the Third National People's Congress, about two and a half times the number elected to the previous Congress. The composition of the Congress shows how broadly based and truly representative it is. Women make up 17.8 per cent of the deputies, and representatives of the national minorities, which constitute only 6 per cent of the Chinese population, account for 12.3 per cent of the total number of deputies. These figures have to be seen against a background of centuries during which women and National Minorities had absolutely no political rights. Party and non-Party people, workers and peasants, scientists, teachers, doctors, artists, soldiers, writers and sportsmen—all are represented.

The head of my hospital, a non-Party orthopaedic surgeon of international reputation who graduated in the U.S.A. and carried out post-graduate studies in several European countries, is not only a people's deputy but has been elected to serve on the Standing Committee of the National People's Congress.

The facts show that both the National People's Congress and the People's Consultative Conference are gaining in importance as more and more people emerge as leaders in all fields of work and as democracy strikes ever deeper roots among the people.

Yet Kelsey says, "Recently I understand these bodies (i.e. the National People's Congress and the People's Consultative Conference) have played a much smaller part," and permits himself to add, "And I don't think this can be separated from the general sectarian and dogmatic line of the C.P.C."

The labels "sectarian" and "dogmatic" reveal—among other things—that Kelsey knows nothing of the rich and highly successful experience of the C.P.C. in united front work.

As for the purpose to which Kelsey applies this kind of ignorance of facts and faulty argument, the kindest thing that can be said of it is that I don't think it can be separated from the general faulty line in relation to the Labour Party, reflected for example, in the *Daily Worker* headline (March 8th,

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1965) "Gollan Plea to Government—Turn to the left". Indeed, one could say that his contribution has the negative merit of carrying Wainwright's argument (*Marxism Today*, January 1965) to its *reductio ad absurdum*, namely that the Labour Party is a genuine working-class party which can lead the country towards Socialism and which is capable of becoming a "national Party in the fullest sense of the word".

However, I do not wish to follow Kelsey in sticking labels. The issue involved is too serious. To arrive at a correct Marxist definition and analysis of the Labour Party, and what should be the relation of the C.P. to the Labour Party, demands honest respect for the facts. It is not enough to show the Trade Union affiliations to the Labour Party and its considerable working-class membership. Its political nature and purpose must be understood. Here, too, the facts based on the 60 and more years of Labour Party history are readily available.

"The Thirties"

J. R. Campbell

I CANNOT recognise my lecture from Alick West's description. My opening remarks placed the British situation in the opening years of the Thirties in the context of the world situation. The New York Stock Exchange crash, which touched off the world economic crisis, the introduction of the Soviet Five-Year Plan, the awakening in India were mentioned in my opening remarks.

The application of the term "social fascist" to the right-wing leaders preceded the coming to power of Hitler in 1933. It was in vogue between 1928 and the beginning of 1933 when our propaganda was, of course, not oriented on the defence of bourgeois democracy but on a revolutionary way out of the rapidly developing crisis, though we did include the defence of democratic rights in all our propaganda.

Alick believes that we called the Labour leaders "social fascists" because we failed to fight fascism as Dimitrov said it must be fought, but Dimitrov's remarks were made long after the use of the term "social fascist" had been abandoned. The use of this term was a mistake, even when it was in vogue. It gave the right-wing Social Democrats, who were in co-operation with the capitalist class everywhere, an excuse for rejecting common action in the developing capitalist crisis, and it in some measure alienated their rank and file. It should not be forgotten, however, that the right-wing Social Democratic leaders on the Continent were sometimes in and sometimes supporting bourgeois governments that were after 1930 putting the cost of the crisis on to the shoulders of the workers, as the Labour Government in Britain was doing in the year before its downfall in 1931.

We cannot understand the success of fascist demagogy in Germany and elsewhere unless we understand the extent to which bourgeois parliamentary governments were using emergency powers to subvert democracy and attack the working class and the petty bourgeoisie. Any picture which suggests that the bourgeoisie and social democrats were defending the "achievements of the bourgeois revolution" while we were on the sidelines calling them "social fascists" is wildly out of focus.

After 1935 it is wrong to say that "we defended it [bourgeois democracy] as realised in the existing British parliament" and that "those whom we should have made our allies we called 'social fascists' as if none but ourselves were defending democracy".

It would be helpful if Alick made clear what period of the Thirties he has in mind. His remarks could have some relevance to the period before 1933. They have no relevance to what happened afterwards. From 1933 on the Communists and the left generally were the driving force of a very broad anti-fascist movement which I described in my lecture, but at the same time were engaged in very powerful propaganda and education showing the socialist way forward.

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In Defence of Milton

S. F. Searchfield

ALL the excellence that can be found in "The Pilgrim's Progress and Popular Culture" fails to compensate me for the unfair comparisons dragged in concerning John Milton and *Paradise Lost*. One would have thought there were sufficient people of the past and present who have never lost an opportunity to belittle Milton, for reasons obvious to any Marxist, without Raymond Southall adding his voice to the chorus.

If his intention was to enhance Bunyan's prestige, then the effort was silly and unnecessary. Nobody who is qualified to pass an opinion will deny that he is one of the greatest of English allegorists, that he wrote simple and beautiful prose, that *The Pilgrim's Progress* is one of the miracles of literature. Whether the tremendous popularity of that work hinges on all or any of the reasons put forward by Southall is another matter. When it is realised that it has been translated into more languages than any other book, with the exception of the Bible and *De Imitatione Christi* of Thomas à Kempis, one can be forgiven for thinking that people who are not steeped in English folk lore and who know little of "specifically English popular culture" can appreciate *Pilgrim's Progress* to the full. Which will give weight to the opinion that, like all other great literature, the cause of its universal appeal must be sought in waters far deeper than in Southall's parochial pool.

Nor did it fashion the consciousness *only* of "those whose labour supported the dubious civilisation of polite society". Polite society itself bought it by the tens of thousand and was not ashamed to give it a not inconspicuous place on its bookshelves. Polite society also gave it away literally by the million as Sunday School prizes. Even that old Tory, Dr. Johnson, ranked it with *Don Quixote* and *Robinson Crusoe* as the only books one wishes longer than they are. He asked Bishop Percy's little daughter what she thought of it: she had not read it. "No! then I would not give one farthing for you," and he put her down from his knee. All of which proves exactly nothing and in no way diminishes the stature of Bunyan. But it does illuminate the snares that await those who give a squint-eyed, superficial assessment of any work of genius.

Milton's greatness has nothing to do with "fashioning the consciousness of polite society", as Southall would have us believe. He certainly influenced the thought of poets who were on the side of humanity—poets such as Byron, Shelley, Leigh Hunt and Keats. And if there are people who find him full of "pomp and circumstance—remote, abstract, grandiloquent, learnedly abstruse", then it is not Milton's fault but their own. Take this small part of Book III:

> Thus with the year
> Seasons return, but not to me returns
> Day, or the sweet approach of ev'n or morn,
> Or sight of vernal bloom, or summer's rose,
> Or flocks or herds, or human face divine;
> But cloud instead, and ever-during dark
> Surrounds me, from the cheerful ways of men
> Cut off . . .

Anybody who is incapable of appreciating sublime verse such as this has never developed a taste for poetry beyond the limits of a child's nursery rhyme. Which is not meant as a slur on nursery rhymes, which also have their rightful place in good literature. What I do urge, however, is that any work of genius that requires patience to fully understand must not be branded as being pompous and remote. Young Thomas Chatterton wrote poetry of exquisite beauty and simplicity which most can understand:

> O sing unto my roundelay,
> O drop the briny tear with me;
> Dance no more at holyday,
> Like a running river be;
> My love is dead,
> Gone to his death-bed,
> All under the willow-tree.

As good and indestructible as this is, who will be stupid enough to claim that because it can be appreciated at the first reading it is greater than a sonnet by Shakespeare. If this were the order of things a simple ballad would be deemed to be on a higher plane than a symphony by Beethoven.

Then what of *Paradise Lost*? Southall maintains it is "an abstract affair, universal perhaps, but set in a distant past, at the beginning of time and in a country far removed from England". It is, in fact, set in no country whatsoever, unless Heaven, Hell and the Garden of Eden have suddenly acquired lands and territories in the temporal sense.

Milton, also, is accused of translating the struggles of the time into abstract disputes and making the spirit of the revolt "safe". Making it safe for whom? Reaction? If an insult here is really intended, then it is the biggest one that could ever be flung at a man who willingly went blind in the service of the English Revolution.

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Then we are asked to compare the difference in spirit which can be gathered from the "Lost" in Milton's title to the "Progress" in Bunyan's. Here I must vehemently protest. This is too slick and unscholarly an analysis. It should never be necessary to point out that the work that followed was *Paradise Regained*, which in reality is the second instalment of one major work. Which should remove the doubts in any minds that when reaction and Charles II were safely enthroned, Milton sank into abject despair and lost his nerve.

The one thing which we can agree on is that *Paradise Lost* is an allegory. And therein should lie the key to many doors. First the Battle of Heaven. Translated, did Milton intend this to be the English Revolution? Those who opposed it are temporarily defeated and flung into Hell. There Satan and his henchmen rally and hold a council of war to decide future strategy. ". . . Moloch, scepter'd king stood up, the strongest and fiercest spirit that fought in heaven, now fiercer by despair." He urges open war, To once more storm heaven, and to hell with caution. Next speaks Belial—"All was false and hollow; though his tongue dropped manna." He is against struggle of any kind, in the hope that the King of Heaven will one day relent and make their lot easier.

Then Mammon makes his contribution, he too is against open war. Unlike Belial, however, he seeks no favours from the enemy. He argues that they have the art and skill to make even this hell into something magnificent. Better to:

> "Live to ourselves, though in this vast recess,
> Free, and to none accountable, preferring
> Hard liberty before the easy yoke
> Of servile pomp."

The one who finally receives the biggest ovation is Beelzebub. And what advice he gives! Don't be so foolhardy as to engage in another battle—a battle we can never win. Go out and use every diabolical device to seduce and corrupt. His advice, of course, is unanimously accepted, which all shows that Milton had no small perception of things appertaining to those who are deposed in revolutions.

Well, the corruption was successful and the means was the Apple. Now comes the big question—had this anything to do with the Tree of Knowledge and Man wanting to know too much? I think not. Milton himself had sacrificed more than most in disseminating knowledge and truth. How he really saw things can perhaps be shown in these lines from Paradise Regained;

> "He spake no dream; for, as his words had end,
> Our Saviour, lifting up his eyes, beheld,
> In ample space under the broadest shade,
> A table richly spread in regal mode,
> With dishes piled and meats of noblest sort
> And savour—beasts of chase, or fowl of game,
> In pastry built, or from the spit, or boiled,
> Grisamber-steamed; all fish, from sea or shore,
> Freshet or purling brook, of shell or fin,
> And exquisitest name, for which was drained
> Pontus, and Lucrine bay, and Afric coast.
> Alas! how simple, to those cates compared,
> Was that crude apple that diverted Eve!"

How crude indeed. And if we equate the Apple with the shabby affair called our affluent society, with its never-ending domestic and international crises, with its lamentable lack of values, with the cynicism and corruption that it engenders—and compare it with what a wonderful place this world could be, perhaps Milton's allegory can be applied to the twentieth century. Paradise Lost has blemishes, there are no faultless works; it has to be admitted that it has an awful lack of humour and that it is often over-weighted with theology. And its attitude towards the relationship between men and women could be considerably improved. It may well be that the theme should have been a pagan one rather than the often reactionary theme of Genesis. But when all has been said, Milton was on the side of progress and gave much to what he believed in. For which we should all be duly grateful.

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